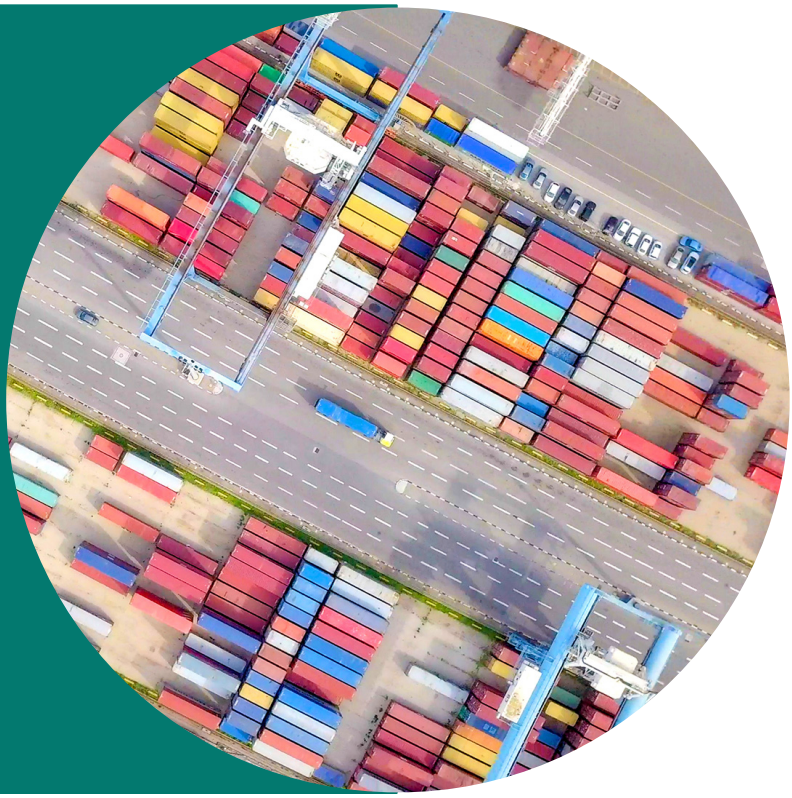
ISCC PLUS 203
TRACEABILITY AND CHAIN OF CUSTODY

ISCC
International Sustainability & Carbon Certification
PLUS



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Content

1. Introduction

Evidence of compliance with ISCC PLUS

Every element of a supply chain for certified materials must provide evidence of compliance with ISCC PLUS requirements. This is obtained through the certification of every supply chain element. To ensure that all the relevant product properties and related sustainability characteristics are forwarded through the supply chain to the market, adequate traceability and chain of custody measures are required.

Traceability

According to the International Organization for Standardization (ISO) the term 'traceability' describes the ability to identify and trace the origin, processing history, distribution and location of products and materials through supply chains.[1] Traceability includes the requirement to be able to physically trace products and materials through supply chains but also to be able to tell of what products are made of and how they have been processed.

Chain of custody

'Chain of custody' is a general term for the process of transferring, monitoring and controlling inputs and outputs and related specific information as they move through the supply chain. This provides credibility that a given batch of material or product is associated with a set of specific characteristics (sustainability characteristics) and that the information on the specific characteristics linked to the material or product is transferred, monitored and controlled throughout the supply chain. Different chain of custody methods are available for the handling of certified materials along the supply chain and are introduced in the following chapters of this document.

Assignment of sustainability characteristics

The combination of both the traceability and chain of custody requirements ensure that the physical flow of materials can be traced back and forth throughout the supply chain, which ensures credible and justified claims about the certified products. The transfer of sustainability characteristics along the supply chain must always be accompanied by a physical transfer of material. This also ensures that sustainability characteristics can be assigned to individual physical consignments of material, and that the quantity of certified materials and products withdrawn at any stage of the supply chain does not exceed the quantity of certified material introduced to the supply chain. The term consignment, or 'batch', describes a specific amount of material with the same sustainability characteristics. In the following the term 'batch' will be uniformly used.

Overview of the content

Chapter 2 defines the scope and normative references of this document.

Chapter 3 covers traceability aspect of the ISCC PLUS standard by describing in detail the general and specific requirements for all elements of the supply chain. This includes the minimum requirements for the management system of a certified operational unit, and the requirements for documentation. The approach for the group certification is also covered in this chapter.

[1] ISO 22095:2020

Chapter 4 describes the requirements for the chain of custody methods that are eligible under this standard. The requirements cover the physical handling of materials and the respective quantity-bookkeeping. Specific requirements of each chain of custody method are covered under this chapter, such as requirements for assigning sustainability characteristics of the input materials to products. An overview of requirements for the mass balance audit is also provided.

2. Scope and Normative References

Relevant for entire supply chain

The requirements described in this document apply to all elements of the supply chain of certified materials that must be covered by certification:

- Farms or Plantations
- Forest Sourcing Areas
- Central Offices for Farms or Plantations/Forest Sourcing Areas
- First Gathering Points
- Points of Origin
- Central Offices for Points of Origin
- Collecting Points
- Traders
- Storage Facilities
- Logistics Centre
- Processing Units
- Limited Risk Distributors
- Final Product Refinement

The requirements have been developed in alignment with Renewable Energy Directive EU/2018/2001 (here referred to as RED III), ISO 22095:2020, and ISO/DIS 13662:2025, where applicable, to ensure consistency with recognised international standards and regulatory framework.

These requirements must be taken into account by all participants of the certification system, i.e. certification bodies (CB) and auditors, as well as System Users and other economic operators covered by ISCC certification.

3. Traceability

3.1. Basics

According to ISCC, economic operators along the supply chain that handle certified material (excluding transportation) must demonstrate compliance with the requirements of ISCC PLUS standard. The specific characteristics of the certified material related to the certification is hereafter collectively referred to as 'sustainability characteristics'.

A valid certificate provides evidence that the certified element complies with the requirements of the ISCC PLUS standard. The elements of the supply chain that are subject to certification and specific requirements for each element are covered under this chapter.

Transportation not subject to certification

Transport and any modes of transportation (e.g. road, rail, air, river or sea) are not subject to certification. All relevant information regarding the transport of certified materials (e.g. delivery documents, means and distance of transport) are covered by the certification of the aforementioned economic operators.

Self-declarations

Self-declarations are forms that must be completed and signed by the following scopes before they can deliver certified material into the supply chain, if they are not individually certified:

- Farms and Plantations
- Points of Origin
- Forest Sourcing Areas
- Final Product Refinement

Sustainability Declarations

Evidence of the sustainability characteristics of a certified material is documented and forwarded through the supply chain by using Sustainability Declarations. A Sustainability Declaration is a delivery document containing relevant information about the certified material that must be issued by the supplier for each delivery of certified material. In the rest of this document, the term 'Sustainability Declaration' is uniformly used.

Certification required

Elements of the supply chain that are not certified cannot handle material as certified and are not allowed to issue Sustainability Declarations according to this standard. Recipients of certified materials must ensure that their supplier was certified at the date of the physical dispatch of the material. All the valid certificates are displayed on the ISCC website. In the case of doubt, ISCC must be contacted to verify the validity of certificates.

Step-by-step traceability

Under ISCC PLUS, the identity, origin, processing history, distribution and location of certified materials can be traced back "step-by-step" through the entire supply chain (Figure 1). The information provided on the Sustainability Declarations that are passed through the supply chain is crucial for this approach.

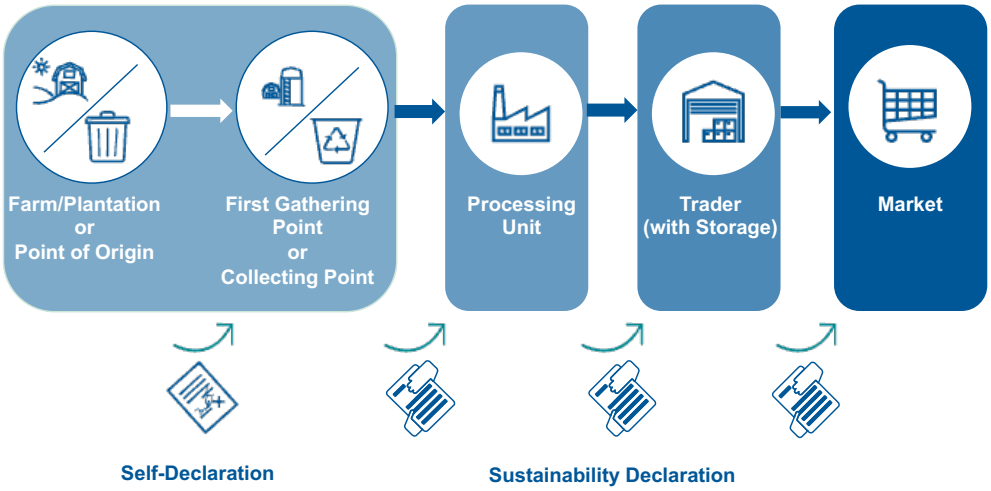

Figure 1: *Step-by-step traceability of sustainability characteristics through Sustainability Declarations*

3.2. Minimum Requirements for the Management System

Appropriate management system

The management system outlines the responsibilities and internal processes necessary to ensure that an economic operator can implement and maintain all requirements needed to meet the objectives of this standard.

The management system must ensure that good management practices with respect to sustainability, traceability and chain of custody requirements are applied at every critical control point. All the elements of the supply chain must ensure that their management system covers these requirements.

Site specific requirements

Any audit for verifying compliance with the requirements of this standard is related to a legal entity at a specific site (defined as being a geographical location with precise boundaries). If economic operators outsource or delegate tasks related to sustainability, traceability or chain of custody requirements to service providers (e.g. transport, storage or processing of certified materials), they must ensure that the service providers comply with the ISCC requirements. This includes contractual agreements and the distribution of relevant information and documentation between the certified economic operator and the service providers.

Risk management

The management system must be adequate regarding the nature, scope and quantity of the required activities. Risk management factors also must be considered when designing the management system (see System Document *ISCC PLUS 204 – Risk Assessment*).

3.2.1. Responsibilities of the Management

Commitment of management

The management of a company must commit itself in writing to comply with ISCC requirements, and this commitment must be made available to the employees, suppliers, customers and other interested parties.

Internal audits

The management of a company must ensure that regular internal audits are conducted regarding compliance with this standard.

Key employee task

The management must identify the critical control points and appoint competent employees to them. These employees are referred as 'key employees'.

Key employees are responsible for the implementation and maintenance of processes and documentation to ensure the compliance of the company with all relevant requirements of this standard. In this respect, it is a key task of the management to provide adequate training to those employees.

The tasks of the key employees include:

1 Sourcing, first gathering or registration of incoming sustainable products, identification of origin and evaluation of the quantity of certified products

2 Conversion or processing of certified products and/or evaluation of the portion of sustainable products

3 Delivery, storage, sales and distribution of sustainable products and evaluation of the quantity of sustainable products

4 Quantity-bookkeeping, reporting, documentation, issuing Sustainability Declarations or other documents within the scope of points (1) to (3)

5 Planning and/or execution of self-assessments and internal audits

3.2.2. Qualification and Training of Employees

Competent staff

The company shall ensure that all members of staff involved in the implementation and maintenance of the sustainability, traceability and chain of custody requirements are competent. They must possess appropriate training, education, skills and experience. To fulfil this, the company must:

1 Establish and implement a training plan regarding the critical control points and covering the positions involved in its chain of custody system

2 Keep records of the trainings provided to staff in relation to this standard

3.2.3. Procedures, Reporting and Documentation

Internal documentation

The internal company procedures with respect to the relevant requirements according to this standard must be documented in writing. The documentation shall include, at a minimum, the following elements:

1 Description of the company's internal material flows

2 Organisational structure, responsibilities and authorities with respect to sustainability and chain of custody requirements

3 Procedures related to traceability and the chain of custody regarding all requirements in this standard

Critical control points

The company shall establish and maintain a reporting system that meets the relevant requirements and functions effectively and efficiently. Furthermore, it must guarantee that relevant records are kept for all critical control points. These records must always ensure a clear link between products, product flow and documentation. Companies shall provide, at a minimum, the following records:

1 Plant operation permit, including layout plan and capacities of storage facilities.

2 Records of incoming and outgoing certified materials (e.g. weighbridge tickets, bill of lading and Sustainability Declarations).

3 Records of any internal processing of certified products, including the respective yields/conversion factors.

4 Records of periodic reporting on opening and closing stock for incoming and outgoing certified and non-certified material.

5 List and contracts with all suppliers (including Farms or Plantations, Points of Origin and other certified suppliers) and recipients of certified material.

6 List and contracts with subcontractors and service providers related to certified materials.

7 Records regarding data transfer (either to the certification system chosen by this company, to the relevant public authority in charge or to the certification body which conducted the audit with respect to this standard).

8 Records regarding the transfer of data to and from any sustainability databases used.

9 Records of internal audits and non-conformities with this standard, related corrective actions and/or identified discrepancies within the documentation.

10 Records of other certification standards with comparable scopes used, non-conformities with these standards and related corrective actions, and, if applicable, information on withdrawn or suspended certificates.

11 A version of the ISCC Terms of Use in force.

Periodic reporting system

All companies must operate a periodic reporting system (e.g. monthly and yearly/calendar year) regarding:

> Quantities of sustainable and non-sustainable incoming materials.

> Storage levels at the beginning and end of the period.

> Quantities of sustainable and non-sustainable outgoing products.

Companies are obliged to inform their CB immediately if any discrepancies occur in the documentation, reporting and material flow.

Transfer of information

All companies handling and supplying certified products to other companies are obliged to provide their recipients with all the necessary documents and sustainability information in the scope of this standard.

Retention period

Furthermore, the company must keep all the relevant records and documents (as hard copies and/or electronically) for at least five years, or longer if required by the relevant national authority.

Documents and information are to be treated as confidential and must not be made accessible to unauthorised third parties.

3.2.4. Technical Equipment

Technical facilities

The company shall identify, provide and maintain the infrastructure and technical facilities required to ensure effective implementation and maintenance of the requirements of this standard.

3.2.5. Internal Audits

The company must conduct internal audits at least once a year covering all the relevant requirements of this standard and establish corrective and preventive measures, if required. Relevant service providers and subcontractors must be taken into account for the internal audits.

The internal audit report must be reviewed by the company's management at least once a year.

3.3. General Information and Documentation Requirements

Appropriate information and documentation for incoming and outgoing certified material are crucial for fulfilling the traceability and chain of custody requirements under this standard. This subchapter provides an overview of the general requirements for information and documentation that must be kept by all economic operators along the supply chain and verified during the audit.

- Information requirements include requirements for Self-Declarations and Sustainability Declarations.
- Documentation requirements include records and documents on traceability and quantity-bookkeeping, which must be complete, up-to-date and accessible at the certified supply chain element.

The requirements in this section referring to incoming material are not applicable to Farms and Plantation or Points of Origin.

3.3.1. General Requirements

Incoming and outgoing materials

Companies must keep the following records for all incoming and outgoing certified materials respectively:

- List of suppliers and recipients of the certified material, including their names and addresses.
- Contracts with relevant subcontractors/service providers, suppliers and recipients of sustainable products.
- Sustainability Declarations, weighbridge tickets, bills of lading or other documentation for all incoming and outgoing certified material.
- Quantity-bookkeeping for certified and non-certified material and, if applicable, a mass balance calculation.

Records and documentation on traceability, chain of custody and quantity-bookkeeping (e.g. mass balance bookkeeping) must be up-to-date. They must be fully accessible to the auditor in the audit process.

Disclosure of all schemes used

If, at the time of the audit, a company is also certified under other sustainability certification schemes with comparable scopes or has been certified in the twelve months prior to the audit, information on the other certifications must be provided to the auditor, including the name of the scheme and certification scope (Refer System Document *ISCC PLUS 201 – System Basics*).

Furthermore, if there are other certification schemes used, then all records regarding the traceability, chain of custody and quantity-bookkeeping for those certificate schemes must be made available to the auditor. This is crucial to verify that no double-accounting (or multiple accounting) of certified material is taking place (see also Chapter 4.2). This measure also mitigates the risk of scheme hopping, i.e. economic operators getting certified under another scheme to avoid recertification and thus avoid the inspection of requirements and transactions conducted under the previously used certification scheme.

Traceability databases

If the company uses sustainability and traceability databases, all records of incoming and outgoing data transfers must be made available to the auditor.

3.3.2. General Requirements for Sustainability Declarations

Link to material

Sustainability information of the materials is forwarded within the supply chain through Sustainability Declarations. A Sustainability Declaration is always linked to a specific batch of certified material that is being delivered along with its related sustainability characteristics.

The interrelation of a Sustainability Declaration and the respective physical delivery depends on the chain of custody method applied. For the chain of custody methods Physical Segregation and Controlled Blending, the information on the Sustainability Declaration reflects the product physically delivered. If Mass Balance is applied as the chain of custody method, the Sustainability Declaration does not necessarily reflect the product physically delivered.

The Sustainability Declaration must at least reflect the product group of the physically delivered product. A product group is defined by similar physical or

chemical characteristics, similar factors determined for consideration of losses. For example, it would not be permissible to issue a Sustainability Declaration referring to soybean for a physical delivery of rapeseed. Similarly, chemicals and plastic products/components would fall under different product groups. In this case even if the chemicals and plastic products have similar chemical characteristics (for e.g., if certified ethylene and non-certified plastic products made from polyethylene are being delivered, the plastic products cannot be claimed as certified, as they are not in the same product group.

Valid certification

Additionally, the supplier must also be in possession of a valid certificate on the date of issuance of the Sustainability Declaration if the date of dispatch and the date of issuance differ. A Sustainability Declaration cannot be issued outside the validity period of a certificate. Exemptions to this requirement apply for First Gathering Points and Collecting Points (see Chapter 3.4.4 and Chapter 3.4.7).

A recipient of certified material is obliged to verify whether the supplier was in possession of a valid ISCC certificate on the date of the dispatch of the sustainable material and at the date of issuance of the Sustainability Declaration. If the supplier was not in possession of a valid certificate on either of the dates, the recipient should not accept the respective Sustainability Declaration. All valid, suspended and withdrawn ISCC certificates are displayed on the ISCC website. If there is any uncertainty, economic operators must contact ISCC for clarification.

Complete and correct information

The recipient of the Sustainability Declaration must check whether all relevant information according to this standard is available and consistent. Sustainability Declarations that are obviously lacking information or containing incorrect or inconsistent information should not be accepted by the recipient. In such cases, the supplier of the Sustainability Declaration should be asked for a corrected document.

Due diligence and protection of trust

The recipient of a Sustainability Declaration can generally trust that data received from certified suppliers is correct. If the recipient of the Sustainability Declaration has demonstrated due diligence by verifying the validity of the supplier's certificate and checking the incoming Sustainability Declaration for complete and correct information as described above, the information provided on the incoming Sustainability Declaration can be regarded as covered by protection of trust.

Cancellation of Sustainability Declaration

If there is incorrect information, it is possible for the issuing party (supplier) to cancel or correct a Sustainability Declaration under the condition that the recipient has not used (i.e. forwarded) the incorrect Sustainability Declaration and the material linked to it. Following that, it should be noted that the recipient cancels or corrects the corresponding information accordingly from their quantity-bookkeeping.

The supplier of the Sustainability Declaration must inform the recipient, their respective CBs (of the supplier and receiver) and ISCC in writing about the

intention to cancel or correct one (or more) specified Sustainability Declaration(s). The recipient's CB must later confirm in writing to the supplier, the supplier's CB and ISCC that the request was received and documented. The supplier may then issue corrected Sustainability Declarations.

The CB of the supplier shall also document a non-conformity in the audit procedure of the supplier (providing incorrect data to recipients). In the next scheduled audit, the CB of the recipient must verify that the Sustainability Declarations have been cancelled or corrected in the recipient's mass balance. Should the supplier and/or the recipient change the CB for the next audit, the newly contracted CB must be informed accordingly to ensure that the specific transactions are covered in the next scheduled audit.

Material returns

The recipient of the certified material may return them to the supplier. In certain cases, it should be possible to return a specific quantity of materials, rather than the entire batch. To handle returns of certified material, the following options exist:

Option 1: The intended recipient of the product does not accept the (defective) goods, i.e. they are returned to the supplier. (without a new Sustainability Declaration from the customer)

If a Sustainability Declaration has already been issued by the supplier for the respective batch of material, the supplier can re-book the goods into their bookkeeping, provided that the refusal of acceptance is documented and verifiable for the auditor.

Option 2: The goods are returned, and the intended recipient issues a new Sustainability Declaration to the supplier.[2]

In this case, the supplier must have recorded the corresponding quantity as being taken out from their bookkeeping. The returned goods can then be booked in again (based on the information provided in the new Sustainability Declaration).

Timely issuing

The timely issuing and receipt of sustainability characteristics is crucial for the documentation and verification of the quantity-bookkeeping. For this reason, the supplier should issue Sustainability Declarations no later than 30 days following the date of the physical dispatch of the certified material.

Place of receipt

Sustainability Declarations must include the "address of receipt/receiving point of the certified material". Due to contractual agreements, if the recipient is responsible for organising the transport of the material from the supplier, the supplier may not know the address of receipt/receiving point (e.g. if it is agreed that the delivery is made e.g. on "FOB" or "free-on-board" basis). If the supplier does not know the address of receipt/receiving point, the supplier can indicate on the Sustainability Declaration that the "address of receipt/receiving point" is the same as the address of the recipient. In addition, a reference must be

[2] *It is not a requirement for the scope of the customer to be Trader to issue a Sustainability Declaration for return of certified material.*

made in the Sustainability Declaration that the recipient is responsible to determine the address of receipt/receiving point due to the contractual arrangement. It is the obligation of the recipient to ensure the traceability of the material and to provide the necessary evidence to the auditor.

Aggregation of Sustainability Declarations

It is also possible to aggregate Sustainability Declarations for multiple deliveries of batches of material, i.e. to issue one Sustainability Declaration for several deliveries of certified material. In order to do so, the following conditions must be fulfilled:

- All material has identical sustainability characteristics.
- The period for all deliveries should not exceed 30 days. The whole delivery period must be stated in the Sustainability Declaration.
- Each individual delivery must be documented by weighbridge tickets or similar documents to allow the verification of the overall amount and the delivery dates of the entire batch.
- The locations from which the material is supplied to and from which it is received remain unchanged during the delivery period.

Issuing more than one Sustainability Declaration for the same batch of material is not permitted.

No provision for layout

Sustainability Declarations must contain the information that is stated in this document. However, there are no mandatory provisions in place regarding the form or layout of the Sustainability Declarations. Economic operators can develop a template for a delivery note which includes all the required information. Alternatively, they can attach a document with the required information to existing delivery documents (e.g. bill of lading).

ISCC provides templates for Sustainability Declarations, e.g., for raw materials, intermediate/final products. The use of the templates provided by ISCC is voluntary. Although the use of these templates is optional, it is essential that all mandatory information according to the latest template provided by ISCC is made available to the recipient in the Sustainability Declarations issued by System Users. System Users are required to adapt according to the latest template provided by ISCC for the mandatory information in the Sustainability Declaration within a transition period of six months from the date of release (based on an ISCC System Update). The latest templates can be downloaded from the ISCC website.

3.3.3. General Information of Sustainability Declarations

For each incoming and outgoing batch of sustainable material a Sustainability Declaration must be in place. Sustainability Declarations must contain general information on the individual transaction between supplier and recipient, as well as the set of product specific sustainability characteristics that needs to be forwarded through the supply chain. Specific information related to each supply chain element (if applicable) are included in Chapter 3.4.

The minimum information requirements of Sustainability Declarations under ISCC PLUS are:

General information

- Name and address of the supplier.
- Name and address of the recipient.
- Related contract number.
- Date of dispatch of the certified material.
- Address of dispatch/shipping point of the certified material.
- Address of receipt/receiving point of the certified material.
- Certificate number of the supplier.
- Date of the issuance of the Sustainability Declaration.
- The number of the group member (in case of group certification).
- Unique number of the Sustainability Declaration.
- Statement “ISCC Compliant”.

Product related information

Mandatory information:

- Type of product (e.g. raw material, crude oil, etc.).
- Quantity of sustainable part of the delivered product (respectively, quantity of sustainable part of produced batch) in metric tons or m3 at 15°C or MWh (for biogas/biomethane)[3] .
- Raw material category (see System Document *ISCC PLUS 202-5 Waste & Residues*).
- For all circular and bio-circular materials:
    - Statement “The raw material meets the definition of waste or residues, i.e., was not intentionally produced and modified or contaminated or discarded, to meet the definition of waste or residues (applicable to waste and residues and products produced from those)”.
- Status post-consumer / pre-consumer material/ mixed (if applicable).
- Type of recycling operations (if applicable).
- For bio materials:

[3] If a product consists of a sustainable part (derived or attributed from certified input material) and a non-sustainable part (derived or attributed from non-certified input material), only the quantity of the sustainable part of the product must be included on the SD. The total quantity of the delivery including the non-sustainable part of the product can be stated additionally (see “voluntary information”).

- Statement "The raw material complies with the sustainability criteria according to the ISCC 'Sustainability Requirements' as laid down in in System Documents *ISCC EU 202-1/-2 – Agricultural Biomass: ISCC Principle 1/Principles 2-6* (or System Documents *ISCC EU 202-3/-4 – Forest Biomass: ISCC Principle 1/Principles 2-6*)".

> Information on chain of custody method applied: "Physical Segregation", "Mass Balance", "Controlled Blending".

> Type of mass balance option.

> If multi-site credit transfer was applied (if once applied in the supply chain this information must be forwarded by all downstream entities).

Voluntary information:

> Total quantity of delivery.

> Product related information (additional information).

> Raw material (e.g. corn, UCO, MPW).

> Country of origin of the raw material.

> Name(s) of Add-on(s), under which the equivalent amount of material has been certified or acquired must be stated (in case of the application of Add-ons).

Documentation for deliveries to non-certified clients

If "ISCC Compliant material" is sold to clients that are not ISCC certified and/or not licensed under the ISCC Licensing Scheme, it must be ensured that a transparent system is in place allowing the verification of material sold as ISCC PLUS certified. Relevant documentation must be issued to allow third party verifiers to trace incoming and outgoing flows of material even if buyers of certified material do not require to receive a Sustainability Declaration (e.g. retail). Documentation must at least refer to evidence on other types of delivery documents as well as quantity-bookkeeping requirements (e.g. mass balance bookkeeping).

3.3.4. Information Requirements for Internal Company Processes

Information for quantity-bookkeeping

Sustainability Declarations shall not be issued for internal processes within an operational unit. However, to ensure that the amount of outgoing certified materials does not exceed the amount of incoming certified materials, the economic operator must carry out periodical reporting. This provides the basis for the quantity-bookkeeping (e.g. mass balance bookkeeping).

The following records must be maintained if an economic operator stores certified material or conducts processes that impacts the physical and/or chemical properties of the certified material:

- Description of internal processes (oil extraction, refining, esterification, dehydration, blending, co-processing or other) and key data.
- Quantities of raw materials if they are not identical with the incoming sustainable product (e.g. share of sugar beet syrup used for ethanol production within an integrated sugar mill/ethanol plant).
- Quantities of co-products.
- Quantities of waste or residues.
- All locations, e.g. Warehouses or Dependent Storage Facilities, where certified materials are stored or have been stored in the current or previous certification period.
- Relevant yields and losses.
- Consideration of losses (e.g. conversion factors).
- Date of production (if required).

All the above-mentioned information must be disclosed to the auditor.

3.3.5. Self-Declarations/Self-Assessments

Mandatory self-declaration/ self-assessment

The obligation for certification according to this standard starts with the First Gathering Point and/or Collecting Point. Farms or Plantations/Forest Sourcing Areas and Points of Origin of waste and residue materials can be individually certified or be certified as a part of a group under a Central Office, on a voluntary basis. All Farms or Plantations/Forest Sourcing Areas that are not individually certified must conduct an annual self-assessment and provide a signed self-declaration/self-assessment to the First Gathering Point or Central Office. All Points of Origin that are not individually certified must provide a signed self-declaration to the Collecting Point or Central Office.

Traceability and access

A self-declaration is an important document to ensure the traceability of certified material up to the Farms or Plantations/Forest Sourcing Areas or Points of Origin. By signing the self-declaration, a Farm or Plantation/Forest Sourcing Area or Point of Origin declares compliance with all legal obligations and the relevant ISCC requirements. A signed self-declaration confirms that the type of raw material provided is sustainable and confirms that they will give external auditors access to the premises to verify conformity with the ISCC requirements.

First Gathering Points, Collecting Points and Central Offices can only accept material as sustainable from Farms or Plantations/Forest Sourcing Areas or Points of Origin, respectively, if they have received a signed self-declaration. Farms or Plantations/Forest Sourcing Areas or Points of Origin must provide the signed self-declaration to no party (e.g. local agents or dependent Collecting Points) other than the certified First Gathering Point, Collecting Point or Central Office.

Templates available

ISCC provides templates of self-declarations/ self-assessment forms for farms and plantations and self-declarations for Points of Origin respectively. The templates are available in several languages to download from the ISCC website. The templates themselves or the exact wording from the templates must be used.

Options to apply self-declarations

There are three options for the application of self-declarations:

1 The self-declaration is completed and signed for every single delivery of sustainable material.

2 The self-declaration is used for all deliveries within a contract between the First Gathering Point and Farm or Plantation/Forest Sourcing Area or Collecting Point and Point of Origin respectively.

3 The content of the self-declaration is transferred with exactly the same words into the contract between the First Gathering Point and farm/ plantation or the Collecting Point and Point of Origin respectively.

Under options 2 and 3, the self-declaration has a validity of twelve months, starting from the date of issuing.

Additional option for Points of Origin

For Points of Origin a fourth option is available: a combination of a clause in the contract between the Point of Origin and the Collecting Point and the availability of the self-declaration template on the website of the Collecting Point.

The contract must contain an unambiguous statement, e.g. "*By signing, the self-declaration as published on the website (URL of the Collecting Point website) applies and is a valid part of this agreement for the contractual period. If no objection is made by the customer up to twelve days before the expiry of each calendar year of this agreement, the self-declaration is confirmed for the following year*".

On the website where the template of the self-declaration is available to download a further unambiguous statement must be included, e.g. "*The self-declarations for deliveries of – used cooking oil* - (can also be other materials) *on this page are a valid part of the contract between (*company*) and its customers. The self-declaration will be presented to the customer either within the contract or within the terms and conditions. If the self-declaration is part of the written contract, it shall be considered to be accepted from the effective date of the contract. If the self-declaration is included in the terms and conditions, then it shall be considered to be accepted if the customer does not submit an objection to (company) within 14 days after the terms and conditions have been presented to them. If the customer does not object, this will be considered as an agreement to the terms and conditions. The self-declarations will be considered to be accepted after the 14 days have passed*".

Self-Declarations/ Self-Assessment for Farms or Plantations with ISCC PLUS Add-ons:

Annually signed self-declarations

Farms or plantations covered under the certificate of a First Gathering Point or Central Office conduct an annual self-assessment and provide the signed self-declarations to the First Gathering Point or Central Office. If Farms or Plantations voluntary add-ons are additionally certified, the respective Farms or Plantations must additionally complete the "ISCC PLUS self-declaration for add-ons" and provide it to the First Gathering Point or Central Office. The templates of the self-declarations are available on the ISCC website.

During the audit, the First Gathering Point or Central Office must provide a list of all Farms or Plantations with names and addresses of contact persons who signed the ISCC self-declaration within the past twelve months. If farmers apply one or more ISCC PLUS add-ons, this must be clearly indicated on the list.

3.4. Specific Requirements for Elements of the Supply Chain

This section describes the individual supply chain elements and their specific requirements relevant under this standard.

3.4.1. Farms or Plantations

Farms or plantations under this standard are agricultural operations where crops are sustainably cultivated, or where agricultural crop residues from sustainable cultivation occur. A farm or plantation is defined as a distinct legal entity[4] which has control regarding compliance with ISCC requirements. (see also Annex III regarding the identification of farms or plantations).

Farms or plantations have three options to participate under this standard:

- Individual certification
- As part of a group of farms organised under a Central Office[5]
- As part of a group of farms delivering to a First Gathering Point

Farms and plantations participating in group certification shall conduct a self-assessment and sign a self-declaration either to the First Gathering Point or to the Central Office responsible for the group. A copy of the self-assessment/self-declaration must be available during the audit. Farms or Plantations participating in group certification do not receive an individual certificate, as they will be covered by the certificate of the First Gathering Point or the Central Office.

Individually certified Farms or Plantations may sell their sustainable material directly to a certified Processing Unit or Trader with Storage location with a sustainability declaration.

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[4] Defined as "an association, corporation, partnership, proprietorship, trust, or individual that has legal standing in the eyes of law. A legal entity has legal capacity to enter into agreements or contracts, assume obligations, incur and pay debts, sue and be sued in its own right, and to be held responsible for its actions" *http://www.businessdictionary.com/definition/legal-entity.html.*

[5] For independent smallholders, please refer to Independent Smallholder (ISH) Certification (*https://www.iscc-system.org/certification/independent-smallholder-certification/*)

Biomass produced on land that is in compliance with ISCC Principle 1 as laid down in System Document *ISCC EU 202-1 – Agricultural Biomass: ISCC Principle 1* and ISCC Principles 2-6 as laid down in System Document *ISCC EU 202-2 – Agricultural Biomass: ISCC Principle 2-6* is considered to be sustainable.

The ISCC Principle 1 specifies the land-related legal requirements set under the RED III and must always be complied with. Violations of ISCC Principle 1 are critical non-conformities and cannot be subject to corrective measures.

ISCC Principles 2-6 cover social, ecological and economic requirements. They are divided into 'immediate requirements', 'short-term requirements, 'mid-term requirements' and 'best practice requirements'.

When signing the self-declaration for the first time or, in case of individual certification, when obtaining the initial ISCC certificate, a farm or plantation must be compliant with all requirements stated in System Document *ISCC EU 202-1 – Agricultural Biomass: ISCC Principle 1* and all immediate requirements in System Document *ISCC EU 202-2 – Agricultural Biomass: ISCC Principle 2-6*.

Immediate requirements cover relevant EU regulations (e.g. Cross Compliance regulations, good agricultural practice requirements, relevant social legislation). In EU Member States which have implemented Cross Compliance (CC), farmers that fulfil the CC criteria through implementation and official recognition of CC are only audited with respect to the requirements set out in ISCC Principle 1 and criteria that are not covered by EU legislation.

The short-term and mid-term requirements specified in System Document *ISCC EU 202-2 – Agricultural Biomass: ISCC Principle 2-6* must be implemented as part of a continuous improvement process over a specified period of 3 years and 5 years respectively.

Additionally, Farms or Plantations can choose to implement the best practice requirements. Best practice requirements fulfilled by a farm or plantation can be communicated separately under ISCC PLUS.

The audit of a farm or plantation must always cover the entire land area (agricultural land, pasture, forest, any other land) of the farm or plantation, including any owned, leased or rented land. The area of the farm or plantation relevant for ISCC certification is not limited to areas where sustainable material is cultivated. Selecting particular areas of the farm or plantation which comply with ISCC requirements, but not the areas of the farm or plantation which may not comply with the requirements ("cherry picking") is not permitted under ISCC.

Farms or plantations, which are audited non-compliant with ISCC requirements or refuse to participate in an audit, must be excluded from ISCC until the respective farm or plantation passes a successful ISCC audit on its own initiative. ISCC must be informed by the CB about Farms or Plantations,

which are audited and found to be non-compliant or refuse to be audited as a part of a sample (see also Chapter 3.5.5).

Farms or Plantations are obliged to enable the full assessment and evaluation of all applicable ISCC requirements, including relevant activities which are outsourced to sub-contractors or service providers. Relevant sub-contractors or service providers (e.g. for the application of plant protection products) must be included in the farm audit if this is necessary to evaluate full compliance with ISCC. This should be included in contractual agreements between the farmer and the relevant sub-contractors and service providers as appropriate. Contractual agreements must be accessible during the ISCC audit.

Farms or Plantations are the beginning of the supply chains and are not subjected to same bookkeeping requirements as the other supply chain elements (balance between material received and dispatched), since they do not receive materials but harvest. However, they must document:

- the amounts of material in storage and delivered.
- origin of material in storage and delivered.
- yield per hectare and field size in hectare.

They are relevant for the plausibility check in the framework of the audit.

For the audit of palm plantations in Indonesia and Malaysia a sustainability risk report must be generated through the ARIA (Automated Risk Assessment) platform.[6] The ARIA report provides an initial assessment of the ISCC Principles 1 and 2 with respect to the protection of biodiverse and carbon-rich areas.

ARIA reports aim to support the auditors' decision-making process in assessing and quantifying the environmental conditions of the plantations to be audited. The ARIA report must be generated by the System User that seeks certification (i.e. First Gathering Point, Central Office or Plantation, in case of individual certification) and must be provided to the auditor. The auditor must consider the ARIA report the for the risk assessment of the certified area. Further information on the ARIA platform can be found on the ISCC Website.

Additional Audit Requirements for Farms or Plantations

The farm or plantation must provide the following records:

- Total area of the farm/ plantation classified as pasture, cropland and other areas (such as compensation area, set-aside-land, forest etc.), including all rented and leased areas for the respective certification period.
- Statement of the field numbers, field sizes, field status, crop, yield for the respective certification period (usually part of the field/crop report).

[6] The ARIA platform may be made available for further countries and crops.

- List of all recipients of sustainable crops or crop residues (First Gathering Points, storage facilities, processing units etc.) with names and addresses.
- Contracts with all First Gathering Points which have been supplied with sustainable crops or crop residues.
- Records of amounts of each crop or agricultural crop residues delivered as sustainable or unsustainable (classified per crop).
- Copy of the signed self-declaration/self-assessment form for the respective certification period (not applicable for individually certified Farms or Plantations).
- Contracts with subcontractors (e.g. harvesting, spraying).

3.4.2. Forest Sourcing Area

The term 'forest sourcing area' according to Article 2(30) of RED III means; the geographically defined area from which the forest biomass feedstock is sourced, from which reliable and independent information is available and where conditions are sufficiently homogeneous to evaluate the risk of the sustainability and legality characteristics of the forest biomass.

This definition implies:

- "Geographically defined area" means that the area of origin from which the forest biomass feedstock is harvested, is known and can be shown on a map, typically on the basis of administrative boundaries.
- "From which reliable and independent information is available" means that the information required to assess compliance with the RED III criteria is available from competent organizations, public or private, which have the legal mandate to produce reliable information. For public forests this could be the competent forest management authority. For private forests, this could be directly responsible for the forest management.
- "Where conditions are sufficiently homogenous to evaluate the risk of the sustainability and legality characteristics of the forest biomass" means that within the area, the legislation covering the elements of the sustainability criteria shall be consistent. If an economic operator's supply base spreads over two countries or regions where the elements addressed in RED III are governed through different sets of legislation, then that results in two separate sourcing areas for which the risk-based approach would have to be implemented separately.

The term 'management system' means an information management system run by an economic operator to demonstrate that biomass sourcing is in compliance with the sustainability criteria at forest sourcing area level defined in Articles 29.6(b) and 29.7(b).

The management system must document management practices with relevance to the sustainability criteria that have been and are planned to be applied by forest managers/owners in the sourcing area.

The management system ensures that information necessary to demonstrate compliance with all sustainability criteria through a risk-based approach is collected, verified, assessed, securely stored by the economic operator and passed down the supply chain using a chosen chain of custody method.

Forest sourcing areas have three options to participate under this standard:

- Individual certification
- As part of a group organised under a Central Office
- As part of a group delivering to a First Gathering Point

All forest sourcing areas that are not individually certified must conduct an annual self-assessment and provide a signed self-declaration/self-assessment to the First Gathering Point of forest biomass. Alongside the self-declaration, it is necessary to submit to the First Gathering Point/Central Office an up-to-date risk assessment at the time the forest biomass is harvested, which indicates that there is low risk of unsustainable forest biomass in the sourcing area, and the scope of the risk assessment fully covers the sourcing area.[7]

Biomass produced on land that is in compliance with ISCC Principle 1 as laid down in System Document *ISCC EU 202-3 – Forest Biomass: ISCC Principle 1* and ISCC Principles 2-6 as laid down in System Document *ISCC EU 202-3 – Forest Biomass: ISCC Principle 2-6* is considered to be sustainable.

The requirements of ISCC Principle 1 for forest biomass ensure the legality of harvesting operations, forest regeneration, the protection of areas designated for nature protection purposes, that harvesting is carried out taking soil quality and biodiversity into account and to ensure the maintenance and improvement of the long-term production capacity of the forest.

ISCC Principles 2-6 cover social, ecological and economic requirements. They are divided into ‘immediate requirements’, ‘short-term requirements, ‘mid-term requirements’ and ‘best practice requirements’.

A forest sourcing area must be compliant with all requirements stated in ISCC Principle 1 and all immediate requirements of ISCC Principles 2-6 to start supplying sustainable material.

Forest sourcing areas and economic operators violating ISCC Principle 1 are excluded from ISCC certification. If violations of Principle 1 are detected, a certificate shall not be issued or shall be withdrawn immediately.

[7] More information about the risk-based approach can be found in the System Document *ISCC EU 202-3 – Forest Biomass: ISCC Principle 1*.

If such economic operators have been audited as part of a group organised under a Central Office or as a part of a group delivering to a First Gathering Point (FGP), they must be excluded as suppliers of sustainable material. Violations of Principle 1 are considered critical non-conformities and cannot be subject to corrective measures.[8] .

Forest sourcing areas are obliged to enable the full assessment and application of all ISCC requirements, including relevant activities which are outsourced to sub-contractors and service providers. Relevant subcontractors or service providers e.g. for the application of chemical pesticide, must be included as a part of the audit if this is necessary to comply with ISCC requirements. The (on-site) access for ISCC audit purposes should be included in contractual agreements between the relevant parties using subcontractors and service providers. Contractual agreements must be accessible during the ISCC audit.

The forest sourcing area shall provide the following records:

- Total area and location of the forest sourcing areas with verifiable information (geographical coordinates, polygons etc.), including all rented and leased areas for the respective certification period.
- List of all recipients of sustainable forest biomass (First Gathering Points, storage facilities, processing units etc.) with names and addresses.
- Contracts with all First Gathering Points which have been supplied with sustainable forest biomass (only applicable for the forest sourcing areas certified as part of a group delivering to a First Gathering Point).
- Up-to-date risk assessment at the time the forest biomass is harvested.
- Forest management plan.
- Copy of the signed self-declaration/ self-assessment form for the respective certification period (not applicable for individually certified forest sourcing area).
- Contracts with subcontractors (e.g. harvesting, spraying chemical pesticides).

Forest sourcing areas delivering to a First Gathering Point must provide a document with the following information for each delivery of sustainable material:

- Name and address of the First Gathering Point, and if the material is delivered to storage facilities related to the First Gathering Point, the names and addresses of the storage facilities.

[8] More information can be found in the System Document *ISCC PLUS 102 – Governance*

- Name and address of the forest sourcing area.
- Unique batch number.
- Type(s) of wood (wood species).
- Harvested forest biomass volume.
- Date of receipt of sustainable forest biomass.

3.4.3. Central Office for Farms or Plantations/Forest Sourcing Areas

A Central Office is the representative body of at least one group of homogeneous Farms or Plantations/Forest Sourcing Areas that are certified as an independent group of agricultural or forest biomass producers. A group of Farms or Plantations/Forest Sourcing Areas is regarded as homogeneous if they are, for example, located in geographic proximity, and are similar in their size, cultivated crops, tree or wood species and production processes.

The Central Office does not receive ownership of the sustainable materials. The Central Office is responsible for the management of the group, i.e. the implementation of the internal management system, the compliance of individual group members with the ISCC requirements, and for carrying out internal audits of the group members. The certificate is issued for the Central Office based on a successful audit. The audit of the Central Office must always be conducted on-site.

A sample of all group members is subject to an audit. At least one farm or plantation/forest sourcing area must be audited in the scope of the certification of a Central Office. A list of all Farms or Plantations/Forest Sourcing Areas participating in group certification must be available during the audit and must be submitted to ISCC together with the audit documents. This list must include at least the name and address or location of the individual group members as well as the date when the self-declaration was signed for the first time.

Each group member is responsible for issuing Sustainability Declarations for their respective deliveries of sustainable raw material. A copy of each Sustainability Declaration must be provided to the Central Office. The Central Office must keep track of the quantity of sustainable material sold based on the outgoing Sustainability Declarations (Chapter 3.5).

Additional Audit Requirements for Central Offices

For traceability purposes the Central Office for Farms or Plantations/Forest Sourcing Areas shall provide the following records:

- List of all the Farms or Plantations/Forest Sourcing Areas that are part of the group (including at least the names, addresses and unique number for each group member).
- Contracts/ agreements with all group members.

- Self-declarations/ self-assessments of the group members. At the date of the audit at least one self-declaration must be in place.
- Documentation of internal audits.
- Copies of all the Sustainability Declarations issued by group members for deliveries of sustainable material.
- Bookkeeping of outgoing quantities based on the Sustainability Declarations received from group members.
- For forest biomass, an up-to-date risk assessment received from the forest sourcing area at the time the forest biomass is harvested.

3.4.4. First Gathering Point

First Gathering Points are economic operators that buy and receive sustainable crops, agricultural crop residues, sustainable forest biomass or forest residues directly from Farms or Plantations/Forest Sourcing Areas. They then further distribute, trade or mechanically treat this biomass.

First Gathering Points have a contractual relationship with the supplying Farms or Plantations/Forest Sourcing Areas for the delivery of crops, agricultural crop residues, forest biomass or forest residues. They must receive a signed self-declaration/self-assessment from each farm or plantation/forest sourcing area before the first delivery of the sustainable biomass. They must conduct internal audits at their supplying farms, plantations or forest sourcing areas.

A key responsibility of a First Gathering Point is the task of determination and documentation of the incoming biomass according to its origin, quality and amount. For further information on group certification requirements see Chapter 3.5.

First Gathering Points are audited regarding the requirements of the management system, traceability and chain of custody. The audit of the First Gathering Point must always be conducted on-site. A sample of all farms, plantations or forest sourcing areas that have signed a self-declaration are subject to an audit in the scope of the certification of the First Gathering Point. At least one farm or plantation/forest sourcing area must be audited in the scope of the certification of a First Gathering Point. The certificate is issued to the First Gathering Point based on a successful audit.

The First Gathering Point is responsible for ensuring the traceability of sustainable material back to its origin. They must also comply with the bookkeeping requirements of their chosen chain of custody method under ISCC PLUS. A site-specific bookkeeping must be kept for each location where sustainable material is stored on behalf of the First Gathering Point.

The contracts between First Gathering Points and Farms or Plantations/Forest Sourcing Areas must be taken into account in the framework of the audit to

verify the amount of sustainable biomass provided by Farms or Plantations/Forest Sourcing Areas (plausibility check).

It is the responsibility of the First Gathering Point to provide evidence to the CB of which sustainable materials are received from Farms or Plantations/Forest Sourcing Areas. Evidence regarding the type of sustainable material can include self-declarations, delivery documentation, or contracts with suppliers. The respective materials will be published on the ISCC PLUS certificate.

A First Gathering Point may use collection facilities (e.g. sites used during harvesting periods equipped with mobile weighbridges) or external storage facilities. If the collection facilities or external storage facilities store sustainable biomass entirely on behalf of a First Gathering Point they are considered as dependent storage facilities, i.e. they do not individually buy biomass from Farms or Plantations/Forest Sourcing Areas and sell it to customers in their own name. Such dependent storage facilities can be covered under the certificate of the First Gathering Point.

A sample of these dependent storage facilities is subject to an audit in the scope of the certification of the First Gathering Point (see Chapter 3.5.5 for further information on the calculation of the sample size). A list of all dependent storage facilities must be available during the audit and must be submitted to ISCC together with the audit documents. This list must include at least the name and address of the dependent storage facilities (see Chapter 3.4.8 for further information).

A First Gathering Point may use the service of so-called local agents or country dealer who facilitate the contracts for the delivery of sustainable biomass between Farms or Plantations/Forest Sourcing Areas and First Gathering Points. If local agents or country dealers act in their own name (i.e. by buying biomass from Farms or Plantations/Forest Sourcing Areas, holding the self-declarations and selling the biomass in their own name), they must be certified individually as First Gathering Points. In all cases, the First Gathering Point must comply with all relevant requirements of this standard.

Under the scope of First Gathering Point, all biomass received must come directly from Farms or Plantations/Forest Sourcing Areas covered under the certificate of first gathering and must be accompanied by a self-declaration. If a First Gathering Point also buys sustainable material from certified suppliers other than Farms or Plantations/Forest Sourcing Areas (e.g. other certified First Gathering Points, individually certified farms or plantations, traders, etc.), an additional certification as a trader is required.

Acceptance of material prior to certification

First Gathering Points may accept crops, agricultural crop residues, forest biomass or forest residues from the harvest in the current or the previous year as being sustainable, up to three months prior to the start of the validity of the certificate. The signed self-declarations from the delivering Farms or Plantations/Forest Sourcing Areas must in place at the date of receipt of this

biomass, and the First Gathering Point must fulfil all chain of custody requirements. All deliveries, which a First Gathering Point receives from Farms or Plantations/Forest Sourcing Areas that have signed a self-declaration must be booked into the quantity-bookkeeping as being sustainable. The First Gathering Point may only dispatch and market the biomass as sustainable after start of validity of the certificate.

Additional Audit Requirements for First Gathering Points

In addition to the documentation and information required under Chapter 3.3.1 the First Gathering Point must document the following:

- List of all Farms or Plantations/Forest Sourcing Areas supplying crops, agricultural crop residues, forest biomass or forest residues including, at the least the full names and addresses of the Farms or Plantations/Forest Sourcing Areas. (This list must be provided to the Certification Body to be forwarded to ISCC together with the relevant audit documentation).
- Self-declarations/self-assessments of Farms or Plantations/Forest Sourcing Areas delivering crops, agricultural crop residues, forest biomass or forest residues for the respective certification period. On the date of the audit at least one self-declaration/self-assessment must be in place.
- Certificate numbers and the name of certification scheme in the case of deliveries from Farms or Plantations/Forest Sourcing Areas that are certified individually.
- Certificate numbers and the name of certification scheme and the number of the group member in the case of deliveries from Farms or Plantations/Forest Sourcing Areas that are certified as a group under a Central Office.
- List of all storage facilities acting on behalf of the First Gathering Point with names and addresses.
- Quantity-bookkeeping (if Dependent Storage Facilities are used, individual quantity-bookkeeping is necessary for each storage facility).
- For forest biomass, an up-to-date risk assessment received from the forest sourcing area at the time the forest biomass is harvested.

3.4.5. Point of Origin for Waste and Residues

Points of Origin for waste or processing residues are operations where the waste or residue either occurs or is generated. Depending on the upstream origin and collection of the waste, waste management plants are defined as Point of Origin or as Collecting Point.

Points of Origin are the extractor of material for downstream supply chain elements. Points of Origin may aggregate waste, prepare waste for further processing, mechanically process waste without chemically transforming it (e.g. shredding, densifying or pelletizing) or provide quality assurance services (e.g. ensuring that waste conforms to agree upon specifications).

Points of Origin have three options to participate under this standard:

- Individual certification
- As part of a group organised under a Central Office
- As part of a group of Points of Origin delivering to a Collecting Point

Waste status

For all the options above, it must be proven at the Point of Origin that the first material in the supply chain is a waste. It means that the material was not intentionally produced, and its further use requires an additional processing step other than normal industrial practice.

Permit for handling waste

Further precondition for certification is compliance with national regulations for the respective material handling. The Point of Origin must hold appropriate licenses and permits to act as a legal waste management company or is an entity that generates recovered material as defined in ISO 14021:2021. This means, the material enters a supply chain again as a feedstock for further production and therefore, promoting the circular economy.

Assessment of waste/residues

Points of Origin delivering certified raw material under ISCC are obliged to enable an assessment and evaluation of all applicable ISCC requirements to ensure that the material generated meets the applicable definitions for wastes or residues. One requirement for Points of Origin to comply with, is to demonstrate that any waste or residue material occurring at their premises is not generated deliberately.

Self-declarations

Non-individually certified Points of Origin need to fill out the ISCC PLUS self-declaration to the Collecting Point of the certified material and specify the material produced according to the ISCC PLUS material list. A copy of the self-declaration has to be available during the audit. By signing the self-declaration, a Point of Origin declares compliance with the ISCC requirements and allows on-site access for auditors to verify compliance with the ISCC requirements if required.

Here, it also needs to be indicated if post- or pre-consumer material is handled:

- For post-consumer waste (definition in System Document *ISCC PLUS 202–5 Waste & Residue*), municipal collection of private household / post-consumer plastic waste is not part of the certified supply chain and therefore a self-declaration does not need to be issued. In that case, the waste management company providing the sorted plastic waste to the next entity in the supply chain is the Point of Origin.

> For other types of collection of waste material, the entity where industrial wastes / processing residues (pre-consumer material – definition in System Document *ISCC PLUS 202–5 Waste & Residue*) occur/are generated usually is defined as the Point of Origin.

Equivalent systems

If the traceability of waste and residues from the Point of Origin to the Collecting Point is ensured by existing systems operated by governmental authorities (delegated or otherwise authorised), e.g. on a local, regional or national level, ISCC can recognise the equivalence of such systems with the issuing of a self-declaration. The equivalence of such systems must be assessed and approved by ISCC. Depending on the type and size of the Point of Origin the principles of group auditing (auditing based on a sample) can be applied. However, individual certification of such Points of Origin is possible on a voluntary basis. An up-to-date list of accepted systems is available on the ISCC website.

In the case of residues from aquaculture, fisheries and forestry the Point of Origin is the equivalent to a Farm or Plantation/Forest Sourcing Area for agriculture (see Chapter 3.4.1 and 3.4.2). For those Points of Origin, a sample must be audited in the framework of the Collecting Point or Central Office certification regardless the amount of waste/residue generated. For such cases, the sustainability requirements (ISCC Principles 1-6) must be checked during the audit (see System Document *ISCC PLUS 202–5 – Waste & Residue*).

Waste and processing residues

For waste and processing residues, different set-ups can be identified. They can be distinguished with respect to the type of the Point of Origin, the collection setup of the material and the risk of false declaration of non-waste material as waste.

Points of Origin below threshold

Points of Origin supplying less than 10 metric tons of a specific waste or residue per month (or less than 120 metric tons per year based on a rolling average) are considered to have a low risk of fraud due to the marginal amount of material supplied[9]. Therefore, it is not usually necessary to conduct an on-site audit, unless there is indication or evidence of non-conformity with ISCC requirements.

Sample audits of points of origin

Points of Origin supplying more than 10 metric tons of a waste or residue material per month (or more than 120 metric tons per year on a rolling average) are considered to have a higher risk of fraud due to the higher amount of material supplied. Therefore, it is obligatory to audit such points of origin on a sample basis, if they do not opt for an individual certification. Points of origin which are not certified individually and producing amounts above the respective threshold form the basis for the sample calculation during the

[9] Example: One Point of Origin supplies two collecting points with 9 mt, each of a specific waste or residue. The overall amount supplied per month by the Point of Origin is 18 mt, thus a sample audit would be required.

certification of the Collecting Point or Central Office (see Chapter 3.5.5 for details on the calculation of the sample size).

Sampling can only be applied if the contractual basis, on which the Point of Origin is operating, avoids incentives for making false claims about the nature of the raw material, and if the risk of fraudulent behaviour is low. Points of origin, for which sampling cannot be applied, must be audited individually on-site. The CB is obliged to verify compliance with the ISCC requirements, especially if there is an indication or evidence for non-conformity of Points of Origin, which are not certified individually. This rule applies irrespective of the size of the Point of Origin or the amounts supplied.

The sampling of palm oil mills that generate and supply liquid waste and residues[10] and refineries that supply waste and residues is not possible. Those entities must obtain individual certification as Point of Origin. For more information, see ISCC Guidance Document *Waste and Residues from Palm Oil Mills*.

Verification of sustainability declarations

In case of individually certified points of origin, the auditor shall check during the audit deliveries of sustainable material to certified downstream recipients by verifying the copies of the sustainability declarations issued by the Point of Origin to the recipients, based on a random and risk-based sample.

Excluding non-compliant points of origin

Non-compliant points of origin for all kinds of waste and residue materials will be excluded as suppliers of sustainable material and cannot be covered under the certificate of any Collecting Point or Central Office (for Points of Origin as a part of a group) or obtain an individual certification as Point of Origin for this period of time. Non-compliant points of origin listed on the ISCC website must be removed from the supply base of collecting points and Central Offices without delay.

Non-compliant means in this context that:

- The material supplied by the Point of Origin did not consist exclusively of the waste or residue material as indicated in the self-declaration signed by the Point of Origin,
- The requirements on the signed self-declaration are not fulfilled, or
- Access to auditors was denied by the Point of Origin.

Certification bodies must inform ISCC immediately about non-compliant Points of Origin. A Point of Origin is excluded for the duration of 5 years and remains on the non-compliant points of origin list for this duration starting from publication. After that, the Point of Origin may only supply sustainable material again after a successful audit. The list of non-compliant points of origin must be checked for the audit of the relevant certification scope, i.e., for audits of

[10] Relevant liquid waste and residue materials are POME (palm oil mill effluent) oil, EFB (empty fruit bunches) oil and PPF (pressed palm fibers) oil.

collecting points and Central Offices that collect material from non-certified points of origin.

Categories of points of origin

ISCC takes into account the different risk levels to ensure the integrity of ISCC, of claims made under ISCC, and to avoid unnecessary obstacles or administrative burdens related to the certification of waste and residues. In this way, ISCC facilitates the diversification of sustainable raw materials according to different categories of Points of Origin for waste and processing residues. These categories are considered separately with respect to the certification process and audit requirements.

The subsequent sections define the categories of Points of Origin, their connection to the Collecting Points, the level of risk exposure, and the corresponding certification and audit requirements:

Business and Companies

Restaurants or industrial operations

Business and companies are the most common category of points of origin. This includes, for example, restaurants or industrial operations using virgin oils to cook food, operations processing biomass or vegetable oils and other commercial processors generating waste or residues.

Franchise system

In case several points of origin are organised under a franchise system (e.g. fast-food restaurants) two different set-ups are possible regarding the self-declaration to be issued and signed. If the Point of Origin is managed by a legally independent owner (franchisee), every individual entity (Point of Origin) must sign the self-declaration. In case several points of origin are operated locally by on-site employees but are fully owned and managed by a local or regional entity (franchisor) and not acting independently, the self-declaration can be signed by the competent local or regional manager responsible for the points of origin. In this case it is possible to issue and sign one self-declaration for all points of origin owned and managed by the franchisor. It must be ensured that a list is attached to the self-declaration which clearly identifies all individual points of origin (including their specific addresses).

Community (Municipal) Collection / Landfill Sites

Compliance with local and national laws

Such sites are usually operated by local (governmental) authorities and provide the service (e.g. to private households) of discard waste or residues at their premises. The risk of fraud is comparably low because sites like these are operated by local (governmental) authorities and are obliged to comply with local and national waste laws. Such sites can be considered to take on the role of a Point of Origin. Therefore, they must complete and sign a self-declaration to the certified collecting point or Central Office. Since such sites might accumulate high amounts of material, they are subject to on-site audits based on a sample according to the principles specified above.

Plausibility of amounts

Community collection sites must be able to demonstrate to the CB the type of material and the plausibility of the volumes received.

Public containers

Waste from households

Some countries have implemented systems to facilitate the collection of used cooking oil (UCO) by using public containers in which private households can discard UCO. This is usually done using small containers or bottles, which are inserted into the public container. The container is then collected or emptied by an economic operator which would be considered a collecting point under ISCC.

To ensure the plausibility of the amounts collected from such containers and to reduce the risk of fraud, the collecting point must meet specific requirements. The Collecting Point, which is in charge for picking up the container, is responsible for implementing an appropriate level of monitoring and identification of the incoming material. The collecting point must indicate employees responsible for internal quality control and inspection of the material (e.g. truck drivers and/or employees handling the material). Indicators for internal monitoring of waste can include, for example for UCO: colour, smell, consistency or viscosity.

The collecting point must have sufficient documentation in place to ensure that a CB can assess and verify the plausibility of the amounts collected. The required information includes:

- Permit or license for collection issued by the competent authority.
- Total number of containers including size (volume) of the containers.
- Information about where each container is located and the respective permit/license from the authorities.
- Information about the residential area or the neighbourhood of the container including the population density of the area.
- Dates when specific containers have been emptied/collected and information on how often containers are emptied/collected (e.g. based on signed receipts from truck drivers).
- Weighbridge reports or collection reports of the incoming material.
- Information about the average number of collections per day.
- Reports on the amounts and management of solid waste and wastewater (e.g. from cleaning UCO).

Sample audits

Public containers must be audited on-site on a sample basis, irrespective of the amount of material collected from each container. The sample size must be based on the total number of different locations (addresses) where public containers are located. Several public containers located next to each other at the very same location (address) shall be audited as one sample.

Prevent contamination

The collecting point is responsible for setting up appropriate measures to prevent contamination of the environment (e.g. by spillage or leakage) and to

set up a process on how to handle contaminations. Each container should show instructions, which at least indicate the type of material to be inserted into the container and how to act in the event of a spillage or leakage.

Private households

No self-declarations required

The amounts of waste or residue material generated by individual private households are marginal. Furthermore, private households usually do not sell waste or residues to a Collecting Point. Thus, they have no economic benefit from providing waste or residues to a collecting point and there is no risk of fraud. It would be disproportionate to require signed documents or on-site audit of private households. Therefore, private households do not need to issue self-declarations to a collecting point, and they are not subject to on-site verification.

However, the certified Collecting Point receiving or collecting the waste and residues generated by private households must be able to demonstrate to the CB the type of material and the plausibility of the amounts collected or received (e.g. by showing collection routes, frequency of collection and historic data of collected amounts).

3.4.6. Central Office for Points of Origin of Waste and Residues

Head of group

A Central Office is the representative body of at least one group of Points of Origin. Points of Origin within one group must be homogenous e.g. in terms of amounts and types of waste/residues generated. Group certification of points of origin is applicable.

Points of origin certified under a Central Office can sell their products directly to third parties (e.g. Processing Unit, Trader with Storage).

Responsibilities

Due to the responsibilities of Central Office, they require an individual certification. The Central Office is responsible for the management of the group of Points of Origin. The Central Office is also responsible for the correct declaration and documentation of the types and amounts of waste/residues materials generated as certified by the Points of Origin. The Central Office is responsible to ensure the traceability of certified material back to its origin.

Exclusion of non-compliant Points of Origin

As head of the group of Points of Origin they have to ensure that all Points of Origin have an adequate understanding of the requirements, which also means that they must inform the Points of Origin about relevant ISCC requirements and adjustments. In case of non-compliance, they must exclude Points of Origin from the supply base.

Audit requirements

Central Offices receive a certificate upon a successful audit. A Central Office is audited with respect to its management system, group management, traceability and chain of custody requirements. The audit of the Central Office must always be conducted on-site. In case external storage facilities are used, a site-specific quantity-bookkeeping must be kept for each location, where certified material is stored on behalf of any of the Points of Origin. During the

audit, the auditor shall audit the quantity-bookkeeping (e.g. mass balance bookkeeping) of every external storage location. All external storage locations must be audited in the scope of the audit of the Central Office (sampling not possible).

Plausibility of materials

The Central Office must check the plausibility of material for each delivery from a Processing Unit that is acting as Point of Origin and assess whether the amount is verifiable. For other Points of Origin, the plausibility of the overall amounts of each waste or residue raw material delivered as certified from the Points of Origin must be checked. This includes that e.g., verification of noticeably high amounts or round numbers. During the audit, the auditor verifies that documents and/or processes are available, which serves as the proof that the Central Office is conducting effective plausibility checks of the material delivered from Points of Origin.

Self-declarations must be available

A Central Office must receive a signed self-declaration from each group member (Point of Origin) supplying waste and residues as certified. Only when a self-declaration has been signed, the Point of Origin can be considered as group member and can supply material as certified (see Chapter 3.3.5 for different options to implement self-declarations). Material, which has been delivered from Points of Origin that have not signed a self-declaration, must be considered as non-certified. The self-declaration must be issued to the certified Central Office and must be available during the audit. At the time of the initial audit of a Central Office, the signed self-declarations from all Points of Origin that are part of the group must be in place. The certification of the Central Office is not possible, if no signed self-declaration can be presented during the audit.

Verification of sustainability declarations

The auditor shall check deliveries of sustainable material to certified downstream recipients by verifying the copies of the sustainability declarations issued to the recipients, based on a random and risk-based sample.

List of group members

Central Offices must keep an up-to-date list of all Points of Origin supplying certified material, which have signed a self-declaration, that are part of the group(s) managed by the Central Office. Prior to the audit, the Central Office shall submit (to CB) the list and the indicative amount of material that each Point of Origin can supply (monthly or annually).

Verification of existence of points of origin

The auditor[11] shall verify that all signed self-declarations are in place from the Points of Origin and the existence of Points of Origin on the list, as well as the volumes supplied. The auditor must verify the existence of at least the square root of all points of origins that have signed the self-declaration within 12 months prior to the audit (rounded up to the next full number). This verification can be done remotely e.g. through internet research, with a telephone call, or through other substantiated evidence. If the existence of a Point of Origin

[11] The verification does not necessarily have to be carried out by the lead auditor. This task can also be carried out by competent staff in the office of the certification body.

cannot be verified remotely, on-site verification is mandatory before the Point of Origin is allowed to supply ISCC supply chains.

External storage facilities

Central Offices may use external storage facilities. External storage facilities used by the Central Office do not need to be certified individually. They can be covered as Dependent Storage Facilities of the Central Office (see Chapter 3.4.8).

The Central Office must keep an up-to-date list of all external storage facilities used (including name and address). It is the responsibility of the Central Office to ensure that the CB and ISCC are able to assess and evaluate conformity with the relevant requirements at the external storage facilities. This can, for example, be included in the relevant contractual agreements between the Central Office and the storage facility. The Central Office must keep a site-specific quantity-bookkeeping (e.g. mass balance bookkeeping) for each external storage location, where sustainable material is stored. During the audit of the Central Office, the auditor shall audit the site-specific quantity-bookkeeping of every storage location.

Additional Audit Requirements for Central Office for Points of Origin

- List of all points of origin supplying waste/residues including, at the least the full names and addresses and indicative amounts of waste/residues supplied by each Point of Origin.
- Self-declarations signed by points of origins supplying waste/residues, waste disposal agreements, sustainability declarations, delivery slips.
- Plausibility check of materials supplied by points of origin.
- Verification of sustainability declarations.
- List of all external storage facilities that may be used by the Central Office or the points of origin with names and addresses.
- Quantity bookkeeping. If external storage facilities are used, individual quantity bookkeeping is necessary for each storage facility.

3.4.7. Collecting Point for Waste and Residues

Declaration and documentation of materials

Collecting Points for waste and residues are economic operators that collect or receive waste and residues material (e.g. used cooking oil, mixed plastic waste) directly from the Points of Origin where the waste and residues are generated. For agricultural crop residues generated on Farms or Plantations, or forestry residues generated on Forest Sourcing Areas, the First Gathering Point is regarded as the Collecting Point.

Responsibilities

Collecting Points either sell, distribute or process the collected waste and residues. Collecting Points are responsible for:

- Correct declaration and documentation of the types and amounts of collected waste/residues materials.

- Ensuring the traceability of certified material back to its origin.
- Complying with the chain of custody requirements.
- Ensuring that all Points of Origin have an adequate understanding of the requirements (which includes informing the Points of Origin about relevant ISCC requirements and adjustments).

Due to their role and responsibilities, Collecting Points are the first elements in waste/residues supply chains, which require an individual certification.

Mechanical treatment

Collecting points may mechanically treat waste or residues material without chemically transforming it or provide quality assurance services. This applies, if both the raw material and the material after the mechanical treatment can be classified and declared as waste and the energy expenditure is negligible. Losses from the mechanical treatment must be documented and verified during the audit. (Auditor must verify the amounts of material going in and out of the mechanical treatment are documented and plausible).

Plausibility of collected amounts

Collecting Points must check the plausibility of the overall amounts of each waste or residue raw material collected from Points of Origin and assess whether the collected amounts are verifiable. Noticeably high amounts or round numbers must be verified by the Collecting Points. During the audit, the auditor verifies that documents and/or processes are available, which serves as the proof that the Collecting Point is conducting effective plausibility checks of the material received from points of origin.

Self-declarations must be available

Under the scope of a Collecting Point, waste and residues received directly from Points of Origin are considered certified only if accompanied by a signed self-declaration from the Point of Origin. The self-declaration must be issued to the certified Collecting Point and must be available during the audit (see Chapter 3.3.5 for different options to implement self-declarations). Collecting points must keep an up-to-date list of all suppliers of certified material.

Scope specific transactions

If a Collecting Point also receives certified material from suppliers other than its own group member Points of Origin (e.g. other certified Collecting Points or individually certified Points of Origin) under ISCC PLUS, an additional certification as a Trader with Storage is required.

Collecting points receive a certificate upon a successful audit. They will be audited regarding their management system, group management, traceability and chain of custody requirements. The audit of the collecting point must always be conducted on-site. A site-specific quantity-bookkeeping must be kept for each location, where certified material is stored on behalf of the collecting point.

A sample of Points of Origin generating on average more than 10 metric tons per month of a specific waste or residue (or more than 120 metric tons per year) must be audited in the framework of the audit of the collecting point. Points of origins that are certified individually or as part of a group under a

Central Office do not fall into the sample. Chapter 3.5.5 provides information on how the sample size is calculated and determined.

Prior to the audit, a collecting point shall submit the list of all points of origin that have signed the self-declaration and the indicative amount of material each Point of Origin can supply to the collecting point. Based on this list, the auditor[12] shall verify the volumes supplied and existence of a sample of the points of origins on the list.

The auditor must verify the existence of at least the square root of all points of origins that have signed the self-declaration within 12 months prior to the audit (rounded up to the next full number).

Example:

500 points of origin have signed the self-declaration: √500 = 22.36. This means the auditor shall verify the existence of 23 points of origin.

This verification can be done remotely e.g. through internet research, with a telephone call, or through other substantiated evidence. If the existence of a Point of Origin cannot be verified remotely, on-site verification is mandatory before the Point of Origin is allowed to supply ISCC supply chains.

Dependent collecting points and external storage facilities

Collecting Points may use external storage facilities. In case a Collecting Point use external storage facilities, the same sample audit approach applies. A sample of those storage facilities must be audited in the scope of the certification of the Collecting Point (see Chapter 3.5.5).

Collecting Points may also use service providers that collect waste or residues from the points of origin on their behalf. If the service provider does not deliver the waste or residue material directly to the collecting point (or external storage facilities used by the collecting point) but operate an individual storage facility for the purpose of aggregating waste or residue material to deliver to the collecting point, the service provider is considered as a dependent collecting point.

Dependent Collecting Points may also conduct a mechanical treatment of the waste or residues material, similar to Collecting Points (see above). If this is the case, losses from the mechanical treatment must be documented by the Dependent Collecting Point.

Dependent Collecting Points are not allowed to buy and sell the collected material. A Dependent Collecting Point is furthermore not allowed to keep the self-declarations signed by the Points of Origin. The responsibility over the supply base (i.e. Points of Origin) is with the collecting point, therefore self-declarations must be with the collecting point.

The collecting point must keep an up-to-date list of all Dependent Collecting Points and/or external storage facilities used (including name and address). It

[12] The verification does not necessarily have to be carried out by the lead auditor. This task can also be carried out by competent staff in the office of the certification body.

is the responsibility of the Collecting Point to ensure that the certification body and ISCC are able to assess and evaluate conformity with the relevant requirements at the dependent collecting points and/or storage facilities. This can e.g. be included in the respective contractual agreements between the Collecting Point and the Dependent Collecting Point and/or storage facilities.

The Collecting Point must keep a site-specific quantity-bookkeeping for each Dependent Collecting Point and for each external storage location where sustainable material is stored. During the audit of the collecting point, the auditor shall audit the site-specific quantity-bookkeeping of every storage location and Dependent Collecting Point. If the Dependent Collecting Point conducted mechanical treatment, it must be verified during the audit that the amounts of material going in and out of the mechanical treatment process are documented and plausible.

Dependent collecting points and external storage facilities used by the collecting point do not need to be certified individually. However, they must be audited on a sample basis in the scope of the audit of the Collecting Point. Remote audits may only be possible for already existing Dependent Collecting Points or external storage facilities, if the same level of assurance can be provided as with on-site audits. This includes that all information on the type and amounts of collected and/or stored materials, site-specific quantity-bookkeeping documentation, delivery documents, layout plans, measuring devices, weighbridge tickets etc. is available and can be verified remotely. In order to decide whether the assessment of the dependent collecting point or external storage facility can be conducted remotely, the auditor needs to conduct a risk assessment based on the analysis of all site-specific quantity-bookkeeping, the total number of points of origin, the complexity of the network structure, and the plausibility of the amount of collected materials. This risk assessment shall be documented and be used as basis for the selection of the respective on-site audits.

All deliveries, which a Collecting Point receives from Points of Origin that have signed a self-declaration, must be recorded in the quantity-bookkeeping as certified material. Collecting points may collect waste and residues from points of origin as certified material up to three months prior to the start of the validity of the certificate. The signed self-declarations from the points of origin must be in place at the date of receipt of the material, and the collecting point has to fulfil all chain of custody requirements. The collecting point can only dispatch and merchandise the received material as certified, following the start of validity of their certificate.

Additional Audit Requirements for Collecting Point

- List of all points of origin supplying waste/residues including, at the least the full names and addresses and indicative amounts of waste/residues supplied by each Point of Origin.
- Self-declarations signed by points of origins supplying waste/residues.
- List of all external storage facilities and dependent collecting points used by the collecting point with names and addresses.
- Quantity bookkeeping. If external storage facilities are used, individual quantity bookkeeping is necessary for each storage facility.

3.4.8. Storage Facilities

Storing certified material

Storage facilities are economic operators store certified materials (i.e. raw materials, intermediate products or final products). Storage facilities include warehouses, silos, tanks etc. A storage facility stores and/or transfers the certified material on behalf of the owner of the certified material. If a storage facility is also trading certified material (becoming owner of certified material), an additional certification as a Trader with Storage is required (see Chapter 3.4.9).

Certification options

All storage facilities storing certified materials must be covered by certification. Storage facilities have three options to be covered under ISCC PLUS certification:

- Individual certification as Warehouse (i.e. storage facility)
- Certification as part of a Logistics Centre (i.e. group certification of storage facilities)
- Covered as Dependent Storage Facility in the framework of the certification of a third party (e.g. First Gathering Point, Collecting Point, Trader with Storage, Processing Unit)

Storage available to third parties

To determine the appropriate certification option for a storage facility, it should be assessed whether the facility will be made available to third parties. When certified individually or as part of logistics centre, a storage facility may store certified material from third parties without being subject to sample audits under the third party's certification (i.e. reduced audit effort for the storage location).

Individual warehouse

Individual certification as Warehouse covers all on-site storage facilities of the certified economic operator.

Logistic Centre

Certification as a Logistics Centre is an option for economic operators that operate and manage a group of storage facilities under a single legal entity at different geographical sites but with a corporate management system. The certificate of a logistic centre contains an annex that lists all storage facilities (with address) covered under the certificate.

Dependent storage facility

Certification as a Dependent Storage Facility is an option if certified third parties (e.g. First Gathering Point, Collecting Point, Trader with Storage, Processing Unit) use (own or rented) storage facilities but do not offer storage to third parties.

Storage at ports

If deliveries of sustainable material to barges and vessels require storage facilities at a port, this storage needs to be covered by certification according to one of the three options mentioned above. This applies if the material is transferred from one container to another container or tank at the port where it can, at least potentially, be mixed with other materials.[13]

Warehouses and logistic centres receive a certificate upon a successful audit. They are audited regarding their management system. Furthermore, the auditor must verify the physical inventory, information on incoming and outgoing materials and the related documentation (e.g. weighbridge tickets), the technical equipment (e.g. weighbridge, calibrations, etc.), and the data transfer between the operator of the storage facility and the owner of the certified material.

Sample audits

For the certification of a Logistic Centre a sample of all storage facilities used for certified material is audited on-site (see Chapter 3.5.5 for rules to calculate the sample). Logistic centres must keep an up-to-date list of all storage facilities used for certified material (including trade name and complete address).

For the Dependent Storage Facilities covered in the framework of the certification of a third party (e.g. First Gathering Point, Collecting Point, Trader with Storage, Processing Unit), a sample of all storage locations that are not individually certified as warehouse or as part of a logistic centre are subject to an audit.

If all relevant documentation can be fully verified remotely by the auditor for the dependent storage facilities and the CB decides that no additional on-site visit is necessary to confirm compliance with ISCC requirements, the sample audit(s) for warehouses can be conducted remotely. The precondition for remote sample audit(s) for dependent storage facilities covered in the framework of the certification of a third party (e.g. First Gathering Point, Collecting Point, Trader with Storage, Processing Unit) are:

- A regular risk setup[14] with low complexity of market activities.
- Clear documentation reflecting all traceability requirements (e.g. centralized barcode database).
- A structured management system containing relevant critical control points and responsibilities.

[13] This is not applicable to materials that are already packaged (e.g., in ISO standardised shipping containers) and where no mixing with other materials can take place.
[14] This should refer to the lowest risk according to System Document *ISCC PLUS 204 – Risk Management*

Third parties using storage facilities must keep a list of all storage facilities used for certified material (including trade name, address and valid certificate number if storage is covered by individual certification or Logistic Centre certification).

For the Logistic Centre and Dependent Storage Facilities covered in the framework of the certification of a third party, the list of storage facilities must be kept up-to-date, and the CB must be informed about any changes to the list. During the period of validity of a certificate, additional storage facilities can be added. They will be included in the determination of the sample audits of storage facilities for the recertification audit.

Ensuring access

Operators of storage facilities that are covered by an ISCC PLUS certificate must enable the auditor to verify compliance with the ISCC PLUS requirements and must grant access to all relevant premises.

Site-specific quantity bookkeeping

The requirements regarding traceability and chain of custody apply to every individual storage site. This means that site-specific quantity bookkeeping must be kept. The certified owner of the sustainable material, i.e. the certified party using a storage facility (own or rented) is responsible for keeping the site-specific quantity bookkeeping. During the audit, the auditor must check the quantity bookkeeping (e.g. mass balance bookkeeping) of each individual storage location. It is not sufficient to only check a sample of the site-specific quantity bookkeeping.

The owner of the certified material is responsible for receiving and issuing the Sustainability Declarations of the certified material that is physically received or dispatched respectively at every individual storage location. The information, the place of receipt or place of dispatch, must clearly indicate the site of the storage location (address), where the certified material was physically received or dispatched respectively, as required on each Sustainability Declaration.

Additional Audit Requirements for Storage Facilities

In addition to the general requirements stated in Chapter 3.3 the following information must be provided:

- List of all the storage facilities, where certified material is stored, including names and addresses (for the logistic centre).
- Plant layout plan for the storage facility.
- Contracts between the storage facility and clients.
- Relevant technical equipment and infrastructure to determine the flow of incoming and outgoing material.
- Documentation of the data flows between the storage facility and client.

- Documentation of the periodical inventory of the incoming and outgoing material per contract/client, including weighbridge protocols.
- Contractual agreement providing access for certification bodies if required.

3.4.9. Traders

Traders are economic operators that trade (i.e. buy and sell) certified materials (i.e. raw materials, intermediate products or final products). All traders of certified material must be covered under ISCC PLUS certification.

Trader with storage vs paper trader

Traders that use their own or rented storage facilities are certified under the scope Trader with Storage.

So-called paper traders, i.e. traders without physical contact to the certified material (i.e. no use of own or rented storage facilities) are certified under the scope Trader.

Link to physical material required

Any trade of certified material under ISCC PLUS always refers to a specific batch of material. Each delivery of certified material must be accompanied by a Sustainability Declaration that is linked to a specific amount of physical certified material (see Chapter 3.3.2). The issuance and trading of Sustainability Declarations without the link to an equivalent amount of physical certified material is considered as book-and-claim and thus not allowed under ISCC PLUS.

Verification of physical location of material

A certified trader must be able to prove at which (certified) site the certified material is physically available. In the framework of an audit, the auditor must be able to verify the physical location of the material as well as where it will be (potentially) supplied to. On the Sustainability Declaration, the information 'the place of receipt' or 'place of dispatch' must clearly indicate the site of the storage location (i.e. the address), where the certified materials were physically received or dispatched respectively.

All relevant documents regarding the transport of the material, which are required to ensure the traceability of the material, must be available and presented to the auditor during the audit. Paper trader may forward the Sustainability Declaration as received from their supplier of the certified material.

Certification requirements

Traders and Traders with Storages receive a certificate upon a successful audit. They are audited regarding their management system, traceability and chain of custody requirements. If a trader uses storage facilities that are individually certified or certified as part of a logistic centre, these storage facilities do not have to be included in the sample audit for storage facilities.

Traders with Storages must keep site-specific quantity bookkeeping (e.g. mass balance bookkeeping) for every individual storage location used.

Traders (paper traders) have no physical contact to the certified material, so they must provide evidence about the transactions of the certified material (e.g. contracts, Sustainability Declarations).

Place of audit different from legal address

ISCC PLUS certificates are site specific, which means that only the address of the audited operational unit can be stated on the certificate. For Traders and Traders with Storages, an exception is possible, if the legal address differs from the place where daily operations are conducted. In this case, the audit is conducted at the place, where actual operations are taking place. This address must be stated in the audit procedure. On the certificate, both the legal address of the trader and the place of the audit are stated.

Additional Audit Requirements for Traders with Storages

In addition to the general requirements stated in Chapter 3.3 the following information must be provided:

- List of all the storage facilities, where certified material is stored, including names and addresses (for the Dependent Storage Facilities covered in the framework of the certification of a third party).
- If the storage facilities used are certified individually or as part of a logistics centre, the name of the certification system and the respective certificate numbers must be included.
- Separate quantity bookkeeping (e.g. mass balance bookkeeping) for every single storage facility, based on the documentation of the stock inventory as provided by the respective storage facility.
- Contracts between the storage facility and trader.
- Relevant technical equipment and infrastructure to determine the flow of incoming and outgoing material.
- Documentation of the data flows between the storage facility and trader.
- Contractual agreement providing access for certification bodies if required.

3.4.10. Processing Units

Processing Units are facilities where conversion, transformation or processing of input materials by changing their physical and/or chemical properties, takes place. This includes manufacturing, refining, or blending steps that alter the state, composition, or structure of the material.

Chemical supply chains consist of different entities changing the properties of relevant materials/ products. Different types of feedstocks and products allow for diverse possible setups. For ISCC PLUS certificates the following types of processing units can be applied:

Processing Unit Type	Description	Example Outputs
Pyrolysis Plant	Processing solid feedstock into liquids	• Pyrolysis Oil
Refinery	Processing of alternative liquid feedstocks (refining)	• Refined Oils
Cracker	Breaking long-chain hydrocarbons into shorter/simpler molecules (e.g. via thermal/steam)	• Ethylene • Propylene
HVO Plant	Processing of vegetable oils (bio-based process for crop-, biogenic waste & residue-based liquid feedstocks)	• HVO
(Plastic) Waste Processor	Processing of (plastic) waste into products (except pyrolysis oil)	• Cellulose esters
Specialty Chemical Plant	Can cover different processes, e.g. Phenol Plant, PVC site, Polymer Coating Plant, Thermal Insulation Plant (expanded polystyrene)	• Butyraldehyde • Propionaldehyde
Compounding Plant	Mixing of different polymers (plastics), masterbatches and fillers without chemical reaction	• Plastic Compounds, where the main polymer is specified in brackets
Polymerization Plant	Processing Unit reacting monomer molecules into polymers (polymer chains)	• Polyethylene • Polypropylene
Converter	Bringing polymers into plastics/plastic products	• Plastics • Films
Mechanical Recycling Plant	Processing of plastic in which the polymer structure is not significantly changed	• Sorted recovered plastics
Melting Plant	Combining different input under high temperature	• Adhesives

Table 1: *Overview on typical processing units in chemical supply chains*

Individual certification

All Processing Units must be certified individually if the operations are taking place in multiple sites. However, it is possible to have multiple types of processing at one site (e.g., polymerisation and converter operations at one site) covered under a single certificate. Group certification or sampling is not allowed for processing units.

In case of specialty chemical plants, it is possible to add a more specific definition on the certificate based on the operations. In most cases, at the end of a supply chain the last unit to be certified under the scope of a processing unit is a converter which significantly changes the physical

properties of their input by putting polymer granulates into different forms (film, bottles, tubs, etc.).

ETBE and MTBE Plants

Facilities that only blend biofuels, bioliquids or gaseous biofuels, such as ETBE or MTBE plants, are not regarded as processing units. They are certified according to the audit requirements for storage facilities (see Chapter 3.4.8) with the exception that sampling and group certification is not possible for blending facilities.

Audit requirements

Processing Units receive a certificate upon a successful audit. During the audit of a Processing Unit, the auditor must especially verify the traceability and chain of custody requirements, plausibility of the incoming and outgoing amounts of certified material, as well as the conversion processes applied within the Processing Unit.

Audit requirements

A part of the assessment of the conversion process is the consideration of losses via determination of conversion factors, including a description of the relation between certified input and certified output. It is the responsibility of the processing unit to provide evidence to the auditor on which types of certified materials are (or will be) received and processed at the respective unit. Evidence can include production reports from the previous year, delivery documentation, or contracts with suppliers. The materials handled by the processing unit under the ISCC PLUS requirements will be published on the annex of the ISCC PLUS certificate.

Scope specific transactions

All materials that are processed on-site and sold/dispatched to recipients are covered under the scope processing unit. If a Processing Unit receives or buys certified material that is sold or dispatched without being processed at the Processing Unit, an additional certification as a Trader with Storage is required.

Tolling agreement

Under ISCC, Processing units can also be covered by a certification via a tolling agreement. The tolling agreement represents an agreement or contract between a feedstock owner and a Processing Unit to process the feedstock for a specified fee (“toll”).

The feedstock owner, which has a tolling agreement with a Processing Unit, is required to possess a valid certificate with any of the following scopes:

- Trader
- Trader with Storage
- Processing Unit

The feedstock (input) and the product after the processing (output) by the Processing Unit remain a property of the feedstock owner.

There are two possibilities for the certification of the Processing Unit covered under the tolling agreement:

Option 1: The Processing Unit has its own certificate in place as per usual practice (with its own address). The feedstock owner pays a "toll" to the Processing Unit for processing the certified material. Processing Unit is responsible for keeping the site-specific quantity-bookkeeping and issuing the Sustainability Declarations to the recipient.

Option 2: Apart from the existing certificate of the feedstock owner, the Processing Unit with whom the tolling agreement is, would be covered under a separate certificate in the name of the feedstock owner. The certificate of the Processing Unit must include:

- The legal name of the feedstock owner,
- The address of the Processing Unit,
- The information that the Processing Unit is used by the certificate holder under a tolling agreement.

Under Option 2, the feedstock owner is responsible for keeping the site-specific quantity-bookkeeping and issuing the Sustainability Declaration to the recipient. The Sustainability Declaration must indicate the place of dispatch of the certified material as the site of the Processing Unit. Under this option, the Processing Unit is not permitted to handle certified material under its own name as it is not the holder of the certificate. Under this option, only one Processing Unit can be covered under a certificate in the name of the feedstock owner.

Biogas/Biomethane Production

Specific requirements for Biogas Plants

During the certification of a biogas plant, the weight, origin and dry substance content be documented for the incoming biomass (substrates). If the biogas plant also acts as a First Gathering Point or Collecting Point, the self-declarations/self-assessments issued by Farms or Plantations/Forest Sourcing Areas or Points of Origin and the delivery contracts for biomass (substrates) must be kept as proof of the biomass.

Documentation of substrates

The substrate quantities introduced into the biogas plant and/or the fermenter must be documented using an operations journal and/or work diary. The information on the origin of the substrate and the dry substance content must also be documented in this operations journal. Recording must be carried out as exactly as possible. It must be verified at least once per month that the substrate quantities supplied correspond to those used in the fermenter of the biogas plant. Silage losses occurring during the storage of the substrate must be documented and explained.

Documentation of biogas yields

Moreover, the yield of the entire plant must be documented in the operations diary. The yield must be measured at the biogas plant using standardised equipment.

Minimisation of methane leakages

To minimize methane leakages biogas plants and biomethane plants can use a range of measures. During the audit it must be verified that at least one of the following measures is applied:

- Covered digestion storage.
- Measurement of methane slip.
- Additional measures to consume the additional methane and to stop the methane slip.
- Adequate application of fermentation residues.

Specific requirements for Biomethane Plants

Biomethane plants receive biogas and process the biogas into biomethane. Biomethane is defined as upgraded (purified) biogas to the quality of natural gas (methane)[15]. Plants that employ a procedure using pressure must retreat their exhaust air thermally.

If the biomethane plant is at the same location as the biogas plant or landfill operation, the yield of the entire plant must be documented in an operations journal. The yield must be measured using standardised equipment or measured continuously by the biomethane plant. The quantity of biomethane gas produced and the substrate quantity used must be compared at least every three months. The energy content of the biomethane produced must be calculated based on the lower heating value.

Statement: No multiple claiming

All elements of the supply chain that produce, trade, consume or further process (e.g. liquifies) biomethane must sign a declaration to confirm that no multiple claiming is taking place. Sustainability characteristics that are assigned to specific batches of biomethane and any statements such as “sustainable”, “certified”, “biobased”, “renewable” or “emission saving” that are related to that batch can only be used once and for one application only (see Chapter 4.2).

To avoid any multiple claiming (also referred to as multiple accounting, see Chapter 4.2), the sustainability attributes cannot be separated from the batch of biomethane and cannot be transferred, sold or otherwise used to satisfy further obligations or commitments or to benefit from more than one renewable incentive scheme. A template of this statement is available on the ISCC website and during the audit the auditor must verify if a signed statement is in place.

Transport in the gas grid

Transport of the certified biomethane via the transmission and distribution infrastructure (i.e. gas grid) is allowed under the chain of custody method mass balance. In such cases, the following requirements must be taken into account for the certification of biomethane plants.

[15] EC definition: https://energy.ec.europa.eu/document/download/d64eee21-9aa7-4afb-89eb-3c44dfe71406_en?filename=Biomethane_fiche_AT_web.pdf

Certified products in gas form can be mixed in the transmission and distribution infrastructure (gas grid), provided that the infrastructure is interconnected. This means the natural gas grid can be used for the transport of biomethane. Transport is not subject to certification under ISCC, as the grid is considered a transport entity. However, it must be possible to determine and verify the quantity and quality of the biomethane fed into and taken out of the grid. For that purpose, the economic operator feeding the biomethane into the grid and the economic operator taking the biomethane out of the grid must be physically interconnected via the grid. Both economic operators that are injecting biomethane into the gas grid and withdrawing biomethane from the gas grid must be certified. During the audit the auditor verifies if contracts are in place that cover the respective amounts of biomethane.

Biomethane injection and extraction

The quantity of biomethane fed into and taken out of the grid must be recorded and documented based on the meter reading on the injection and withdrawal point by the economic operator that injects or withdraws the biomethane respectively. They must state the properties of the biomethane (units: m^3 or kWh). At the end of the respective mass balancing period, the quantity of biomethane taken out of the natural gas grid shall not exceed the quantity of biomethane fed into the grid. The quantities which are fed into and taken out of the gas grid must be monitored and verified by the competent national or public authorities (e.g. main customs offices). Documents issued by the respective authority providing evidence that the quantities have been monitored and verified must be made available to the auditor.

Bio-LNG plant

Chemically, biomethane and Bio-LNG (Liquified Natural Gas) are the same molecule. However, biomethane is in a gaseous state of matter whereas bio-LNG is in a liquid state. The conversion of biomethane to Bio-LNG is done at a liquefaction plant (often referred to as LNG plant). The liquefaction plant must be certified as Processing Unit and the respective conversion factor (e.g. for gas losses) of the liquefaction process must be taken into account, which must be checked by the auditor during the audit.

The quantity of Bio-LNG or biomethane that can be claimed from a plant is limited to the amount that can (physically) be processed by the plant. In the mass balance, biomethane and Bio-LNG must be kept separately. If the LNG plant is connected to the gas grid, it can be considered as being part of the interconnected infrastructure. This allows certified product to be transferred via grid without losing the certified material under the chain of custody method mass balance (see also Chapter 4.6).

Bio-LNG terminal

A Bio-LNG terminal can receive Bio-LNG via ship. The terminal must fulfil the technical requirements for discharging the liquified gas from the ship and storing it in on-site tanks. In addition, if the LNG terminal is connected to the gas grid and it must fulfil the technical requirements for injecting and extracting biomethane from the grid and for storing the gas in on-site tanks. A Bio-LNG terminal must also fulfil the technical requirements for transferring the material

from a liquid into a gaseous state and for injecting the gas on-site as biomethane into the natural gas grid.

Transfer of sustainability characteristics

The transfer of sustainability characteristics from biomethane to Bio-LNG on a mass balance basis is possible, if plausible conversion factors that would have occurred in case of a liquefaction are taken into account. The liquefaction plant or the LNG Terminal must be certified as processing unit.

3.4.11. Final Product Refinement

Final Product Refinement

Economic operators involved in Final Product Refinement (FPR) are those that perform the final manufacturing activities on ISCC PLUS-certified materials or products, without substantially altering their properties. These activities do not fall under the category of Processing Units, as they entail only the finishing steps that prepare the product for market distribution.

The following activities[16] are considered as FPR activities under ISCC PLUS:

- Blowing or forming from a preform: Applicable only if the process uses a preform. If the process does not involve a preform, the scope must be classified under a Processing Unit.
- Cutting: Adjusting the size or shape of the material without altering its fundamental characteristics.
- Labelling: Applying labels to the final product or its packaging for identification or branding purposes.
- Assembling: Combining multiple components into a final product.
- Printing: Adding designs, logos, or other markings to the final product.
- Sealing: Closing or securing the product or its packaging to maintain its integrity.
- Filling: Inserting the product into its final packaging or container.
- Coating or Painting: Applying a protective or decorative layer to the product.

If the economic operator is a brand owner selling material to final customers (i.e., as the last entity in the supply chain), and under their own brand name, the Licensing Scheme may be applicable. To determine the eligibility, it is recommended to refer to the 'Licensing' section on the ISCC website.

Audit requirements

Companies that perform FPR activities receive a certificate upon a successful audit. They are audited regarding their traceability and chain of custody requirements. Audit requirements for FPR focus on several key areas to ensure compliance with ISCC. These include:

[16] *This is not an exhaustive list of FPR activities. For any other activity not mentioned here, the Certification Body must reach out to ISCC for confirmation via the Interpretation Contact Form.*

- Consideration of Losses: Verification of the conversion factors or consumption factors used to account for any losses during the refinement process, ensuring they are accurate and consistent with the material's characteristics.
- Quantity-bookkeeping: Verification of a site-specific quantity bookkeeping (e.g. mass balance bookkeeping,) which accurately tracks the flow of certified materials through the FPR processes. It must also be checked whether inputs and outputs are correctly recorded, and the quantity-bookkeeping is kept according to ISCC PLUS CoC rules.
- Traceability: Confirming that the traceability system is in place, which enables the accurate tracking of certified materials from the point of receipt through to the final product. This ensures that the certified status of the material is maintained throughout the refinement process.

3.4.12. Transport

Transport includes all modes of transportation such as road, rail, air, river or sea transport. The gas grids, pipelines and electric power grids are also considered transport entities and can be used for the transportation of certified materials in gas or liquid form and renewable energy respectively. Transport is not subject to certification according to this standard.

All relevant information regarding the transport of certified material (e.g. delivery documents, means and distance of transport) are covered by the requirements for audits and Sustainability Declarations for the elements of the supply chain that arrange transportation of the certified material (see Chapters 3.4.1 – 3.4.11).

In the case of transportation via ship the delivering companies or operational units must provide, in addition to a “Bill of Lading”, a document issued by an independent inspector which confirms the quantity of certified product transferred from the supplier, as well as the details of the ship and ship compartment or hold the material was loaded. Similarly, the dispatch of the sustainable product must be documented. It must be assured that transport documents can be related to the identity number of the purchasing contract for the sustainable product.

3.4.13. Brand Owners

Brand owner certification

Brand owners that receive a finished good and would like to make an ISCC claim (on-product/off-product) must either be covered by certification or participate in the ISCC licensing scheme. Please find all relevant information on the ISCC website.

3.5. Requirements for Group Certification

Certification of groups

“Group certification is a practice of organising individual producers into structured groups and shifting responsibility in part from an external audit to

internal inspections".[17] The procedure for group certification under ISCC is based on best practices for the certification of groups, e.g. principles laid down by the ISEAL Alliance.

Internal and external auditors

Group certification is based on the concept that a significant proportion of the inspections required is carried out by internal auditors. Independent external auditors assess and evaluate the effectiveness of the internal audit system, conduct audits of a sample of the group members (sampling) and certify the entire group.

Avoiding disproportionate certification efforts

An individual audit of each single producer of raw material would often impose disproportionate financial costs and effort on the entity and the general certification process. By joining a group, biomass producers can reduce the effort and costs of certification considerably. This approach is particularly important for the certification of smallholder farmers, producer organisations and cooperatives. Within ISCC, group certification can be applied to:

- Homogeneous groups of producers of certified raw material and feedstock
  - Farms or Plantations
  - Forest Sourcing Areas
  - Points of Origin
- Dependent Storage Facilities or Logistic Centres
- Final Product Refinement

3.5.1. General Requirements for Group Certification

For each group, the sampling approach as described below must be applied separately (see Chapter 3.5.5). ISCC may specify materials and/or elements of the supply chain for which sampling cannot be applied. The number of group members can be limited by the Certification Body (CB), depending on the audit results and the performance of the group.

Covering different groups

Group members which do not fulfil the conditions described below will be treated as autonomous entities and cannot be part of the group certification. It is possible to cover different groups under one head office, if the group members within each group are homogenous as described below.

Farms or Plantations/Forest Sourcing Areas

Group certification for Farms or Plantations/Forest Sourcing Areas under a Central Office, is only acceptable, if the following criteria are met:

- The members must be located in geographic proximity (e.g. in the same administrative region).
- The climatic conditions for agricultural/forestry production are similar.
- Similar production systems are applied.

[17] *ISEAL Alliance, 2008: Common Requirements for the Certification of Producer Groups P035 Version 1*

> The risk assessment has shown a similar risk exposure for the group members.

These criteria are usually also met by the agricultural producers supplying to a First Gathering Point. Therefore, based on an assessment of the criteria indicated above, the farms and plantations supplying a first gathering point can usually be considered as one group.

Points of origin

Group certification for Points of Origin under a Central Office, is only acceptable, if the following criteria are met:

> Members must share a harmonised management system.

> Members must have similar processes and generate similar types of waste material (e.g. used cooking oil or mixed plastic waste).

> The risk assessment has shown a similar risk exposure for the group members.

These criteria are usually met by points of origin supplying a Collecting Point. Therefore, based on an assessment of the criteria indicated, the Points of Origin supplying to a Collecting Point can usually be considered as one group.

Logistic Centre

Group certification approach for storage facilities can be applied for a group of storage facilities belonging to a logistic network (Logistics Centre). This approach is only allowed, if the individual storage facilities belong to the same legal entity, share a harmonised management system and have similar processes.

Dependent Storage Facilities

The principles of sampling can also be applied to cases that a certified economic operator uses (own or rented) external storage facilities (Dependent Storage Facilities). For the rented external storage facilities, the storage facilities in such cases do not become the legal owner of the certified material, which means that they have no contractual agreements with the supplier or the recipient of the certified material and only act on behalf of their client. Therefore, it is the responsibility of the certified economic operator renting the storage facility to ensure that all relevant ISCC requirements are complied with.

Final Product Refinement

Last scope that allows the group certification approach is Final Product Refinement. It is possible for economic operators to conduct FPR activities (see Chapter 3.5.7) on behalf of the certified companies without getting the ownership of the certified material. In such setups, these economic operators can be audited with the principles of sampling.

3.5.2. Management Requirements

Role of group manager

A group is represented by a head office responsible for the management of the group, i.e. Central Office, First Gathering Point, Collecting Point or Logistic Centre. The head office as group manager is responsible for the implementation of the internal management system and for the individual

group members' compliance with the ISCC requirements. The responsibilities of the head office include:

- To set up a procedure to take in and register new group members.
- To inform group members about their responsibilities and about the relevant ISCC requirements applicable to the group.
- To make sure that all group members have an adequate understanding of the requirements and processes.
- To run an up-to-date register of members.
- To plan and organise internal audits.
- To issue annual reviews.
- To inform the members about relevant changes or adjustments to requirements.
- To compile the necessary documentation.
- To exclude members in the case of non-compliance.
- To initiate preventive and corrective measures in member operations.

Documentation

The rights and duties of the group members shall be documented and defined in a regulating contract or agreement between the group members and the head office of the group.

Responsibilities of group members

The following responsibilities apply for group members:

- Commitment to the group's head office to meet the standard requirements and to report intentional or unintentional non-conformities.
- Conducting a self-assessment and signing of a self-declaration.
- Providing necessary information to internal and external auditors, especially regarding the (major) production activities, sales and deliveries of certified material relevant to ISCC.
- Granting access to their premises to conduct internal and external audits.
- Commitment to the implementation of amendments and corrective actions.

3.5.3. Documentations and Records

Documentation of processes and responsibilities

The processes required by the ISCC standard must be documented by the head office and records kept for at least five years. The following information especially must be documented:

- List of all group members including name and address/location, the size of the production area, volume of production.
- Register of fields belonging to Farms or Plantations/Forest Sourcing Areas, maps of production area.
- Process instructions.
- Contracts and/or agreements between the group's head office and group members.
- Records of (major) production activities and sales, deliveries and transportation of certified material relevant to ISCC.
- Audit results of internal and external audits including non-conformities and corrective measures.
- Review of the audit results by the group's head office.

An appropriate instrument for the documentation of processes and contents is a (quality) management handbook.

Management and mapping methods

The group should have a uniform method for mapping. Maps may be replaced by GPS-based information to allow for a more detailed overview and to improve the risk assessment, e.g. by using satellite data, databases or appropriate remote sensing tools.

3.5.4. Internal Audit System and Review

Internal audit of group members

The group manager must introduce an internal audit system, which monitors the performance of the group management and monitors compliance with the ISCC PLUS standard. The internal audits should ensure individual group members' compliance with the certification criteria of the ISCC PLUS system and are an important part of the risk management of the group manager.

The internal audit should cover the ISCC PLUS requirements that are relevant for the group as a whole and for the scope of the individual group member in particular. A plan must be developed containing at least the following information:

- Internal auditor(s) in charge
- Participants
- Time frame
- Audit emphasis
- Procedure

Annual internal audit

All group members must be audited in an internal audit at least once a year. Prior to an initial certification, all individual group members and the group as a whole, must be subject to an internal audit to verify:

1 Compliance with ISCC PLUS requirements.

2 The functionality of the internal audit system.

Before a new member can be registered, they must first be internally audited.

Qualification of internal auditors

The internal auditors in charge must be qualified to professionally judge the relevant questions. Before they start auditing, they must be trained regarding the requirements of the ISCC PLUS system e.g. by participating in ISCC PLUS Training. Training of internal auditors should continue on a regular basis, with a particular focus on relevant risk factors identified for the group.

Documentation of internal audits

The internal auditor must document the activities and the results of the internal audits. The documentation must be made accessible to the external auditor. The results of the internal audits must include major non-conformities, corrective measures and an action plan for improvement.

Review

The group manager must carry out an annual review. As a minimum requirement, this review must contain the evaluation of the internal audit results and possible inputs from a third party.

3.5.5. External Audit

External audits of the group must take place on an annual basis (i.e. at least every 12 months). The group's head office is always subject to an on-site audit.

The sample size of group members to be audited must be calculated by the external auditor. The sample size must be based on:

1 The risk factor determined by the external auditor during the risk assessment.
2 the total number of individual group members relevant for sampling covered during the certification period.

The basis for a consistent and reliable group certification process is the correct definition of the sample size to be audited for compliance. The external auditor is responsible for selecting and auditing individual group members within the scope of the sample.

Calculating the Sample Size:

The sample size is determined by the following formula:

$$s = r \times \sqrt{n}$$

s: sample size

r: risk factor

n: total number of group members.

The minimum sample size is the square root of the total number of group members ($\sqrt{n}$).

The minimum sample size must be multiplied by the risk factor (r) determined by the auditor during the risk assessment:

Regular risk: r = 1

Medium risk: r = 1.5

High risk: r = 2

The auditor is entitled to increase the sample size according to the individual situation and based on the auditor's risk assessment in order to reach the necessary level of confidence to make a reliable statement regarding the conformity of the group. The lowest possible sample size is one.

If the result of calculating the sample size (s) is a decimal number, the sample size (s) is to be rounded up to the next whole number (integer). The decisive factor for rounding up is the first position after the decimal point. This means, calculated sample sizes (s) up to 1.04 will result in a sample size of 1. A calculated sample size of 1.05 or higher would lead to a sample size of 2 (1.05 must be rounded up to 1.1 which must be rounded up to 2).

Individually certified group members may not be considered for the total number of individual group members relevant for sampling.

For Farms or Plantations/Forest Sourcing Areas, which are participating in group certification, the total number of group members (n) is composed of all Farms or Plantations/Forest Sourcing Areas, which have conducted the self-assessment and signed the self-declaration at any time during the 12-month period prior to the date of the certification audit. This is irrespective of the amount (if any) of material supplied as certified by the Farms or Plantations/Forest Sourcing Areas in the previous certification period.

Points of Origin (producers of waste or processing residues) participating in group certification must sign the respective self-declaration for compliance with the ISCC PLUS requirements and provide it to the group's head office (e.g. Central Office or Collecting Point). For points of Origin the risk of non-compliance and fraud mainly depends on the amount of waste or processing residues generated. Thus, the total number of group members (n) is composed of the number of producers that generate a relevant amount of waste and residues (see Chapter 3.4.7) and which have signed the self-declaration during the twelve months prior to the audit. This is irrespective of the amount (if any) of material supplied as certified by the Point of Origin in the previous certification period.

The principles for calculating the sample size are equally applied to Dependent Storage Facilities and group members of Final Product Refinement, if sampling is applied.

Selecting the Sample:

The external auditor conducting the group audit must select individual group members to be included in the sample for verification of compliance with the

ISCC requirements. The group members to be audited should be selected so that the whole group is represented in a well-balanced manner. The selection should be based on a combination of risk-based selection and random selection. The auditor must consider at least the following factors when determining the sample:

- Type of supplied raw material (if applicable, these should be represented appropriately in the random sample).
- Different sizes of suppliers.
- Geographical location, e.g. by clustering the relevant area into different risk areas.
- Indication of non-conformity or fraud.

Random and risk-based selection

At least 25% of the selected group members should be chosen randomly. For the risk-based selection, the auditor should preferentially select group members, where there are indications of non-conformity or fraud, or group members that are located in high-risk areas. In the case different risk areas have been identified by remote sensing analysis (e.g. via satellite data or databases), the selection of the sample should also take into account results and findings from previous audits conducted in the area (if available).

New group members in subsequent audits

Where appropriate (and in accordance with the criteria for risk-based and random selection), the auditor may select group members in a way that facilitates a cost-efficient auditing process, e.g. by selecting group members that are located near each other. As long as there is no indication of non-conformity from specific group members, none of the successfully audited entities from the previous year shall be part of the sample in consecutive audits, as long as there remain some entities that have not yet been subject to an external audit. As a general requirement, auditors should aim for selecting samples in a way to ensure that all group members are equally covered, generally within a timeframe of five years.

Factors for sample selection

The following factors bear specific relevance for group certification and must be considered by the auditor[18]:

Factors related to the type and size:

- Size of the group member.
- Type of operation.
- Value and amount of the products.

Factors related to specific characteristics:

[18] *These factors are formulated in correspondence with the Guidance document for the evaluation of the equivalence of organic producer group certification schemes applied in developing countries (EEC November 6th, 2003)*

- Degree of similarity of the production systems and the crops or raw materials within the group.
- Risks of intermingling and/or contamination.

Experience gained:

- Number of years the group has functioned.
- Number of new members registered yearly.
- Nature of the problems encountered during audits in the previous years and results of previous evaluations of the internal audit system's effectiveness.
- Management of the internal auditors' potential conflicts of interests.
- Staff turnover.

ISCC can determine additional specific regulations for certain regions/areas if this becomes necessary, e.g. due to concrete risk.

Audit of the Sample:

The group members selected by the external auditor for verification of compliance must be audited successfully to demonstrate compliance with the ISCC requirements. It is generally expected that group certification audits are conducted on-site, unless conducted with tools that provide the same level of assurance as an on-site audit and which are explicitly approved by ISCC for conducting remote audits (see System Document *ISCC EU 201 System Basics*). The audit of the group manager (i.e. first gathering point, collecting point or Central Office) shall always be conducted on-site.

Consequences of non-compliance

In the case that the external auditor detects for one member (or more group members) of the sample, major or critical non-conformities, or one member (or more group members) refuse to participate in the audit (regarded as critical non-conformity), the sample size (s) of the current audit must be doubled. The group members from the initial sample that have passed the audit successfully can be counted towards the increased sample.

In particular cases, in which System Users have applied the highest levels of assurance (e.g. by using appropriate risk mitigation tools) deviation from this rule may be considered in consultation with and after approval by ISCC. If in the increased sample, further group members are detected with major or critical non-conformities, the increased sample must be doubled again, and so forth. This process may continue until 100% of the group members have been audited. Group members that are audited and found to be non-compliant, must be excluded from the group and from the certification under ISCC.

Non-compliant

"Non-compliant" means that mandatory requirements of ISCC are not complied with, and compliance cannot be ensured within 40 days after the

audit by implementing corrective measures. Group members that have been excluded may only participate in ISCC again once they have successfully passed an individual audit. If major non-conformities that could not be corrected within 40 days or critical non-conformities are found in the majority of group members across the whole sample, the issuing CB must declare the certificate invalid and withdraw it with immediate effect and must inform ISCC immediately. ISCC may publish non-compliant group members on the ISCC website.

The provisions on non-conformities and sanctions as described in System Document *ISCC PLUS 102 – Governance* must be considered.

Reporting to ISCC

In order to avoid misuse and fraud, group members which are audited as not complying with ISCC requirements must be reported to ISCC by the certification body.

3.5.6. Group Certification Approach for Country Dealers / Limited Risk Distributors (LRD)

A Limited Risk Distributor (LRD) is an independent legal entity within a corporate group that holds ownership of certified material without taking physical possession. Acting as a “paper trader,” the LRD facilitates the sale of material within specific countries or sales regions on behalf of a Business Principal. The Business Principal is responsible for all purchasing and sales activities and may also manage related product and market risks. To ensure effective coordination and traceability, a centralised Enterprise Resource Planning (ERP) system must be maintained by the Business Principal.

In the context of an LRD group certification approach, the Business Principal (also referred as the Parent Company) is the certificate holder under ISCC PLUS. The sales entity (referred to as the LRD), operates under the scope of the Parent Company´s certificate.

Under ISCC PLUS, there are four distinct LRD setup options available, each corresponding to different operational structures and physically handling scenarios. These setup options are further described in the following sections.

To qualify for any of the four LRD group certification setups under ISCC PLUS, the site must comply with all of the following specifications.

Specifications for LRDs:

- The LRD must be part of the same corporate group as the certificate holder, with the certificate holder holding at least 50% equity share. Branches of the same legal entity operating at a different address may also be considered as LRDs.
- There must be publicly available information clearly linking the LRD to the corporate group (e.g. annual financial reports).

- The LRD must be integrated into the central material flow documentation system of the corporate group. This ensures that all relevant data is accessible from the Parent Company´s (certificate holder's) headquarter.
- The LRD must act solely as a paper trader, purchasing and selling the certified material within the central system without taking physical possession.
- The LRD must operate exclusively on behalf of the corporate group. It must not be active in trading for other companies outside of the corporate group.
- The LRD must not be individually certified under the Trader scope. All its activities related to certified material must fall under the scope of the Parent Company´s certificate.

The decision tree below (Figure 2) helps determine a System User's eligibility for applying an LRD group certification and, if eligible, identifies which of the four LRD setup options applies to their operations.

Figure 2: *Decision Tree for LRD Group Certification Eligibility*

In the context of the LRD group certification approach, a Processing Unit may be included under a Tolling Agreement with the Parent Company (both Option 1 and Option 2 may be applicable; see Chapter 3.4.10 for details). However, a Tolling Agreement directly between a Processing Unit and an LRD is not permitted under ISCC PLUS. This restriction ensures that operational control, traceability, and sustainability data management remain centralised within the certified Parent Company.

LRD Option 1:

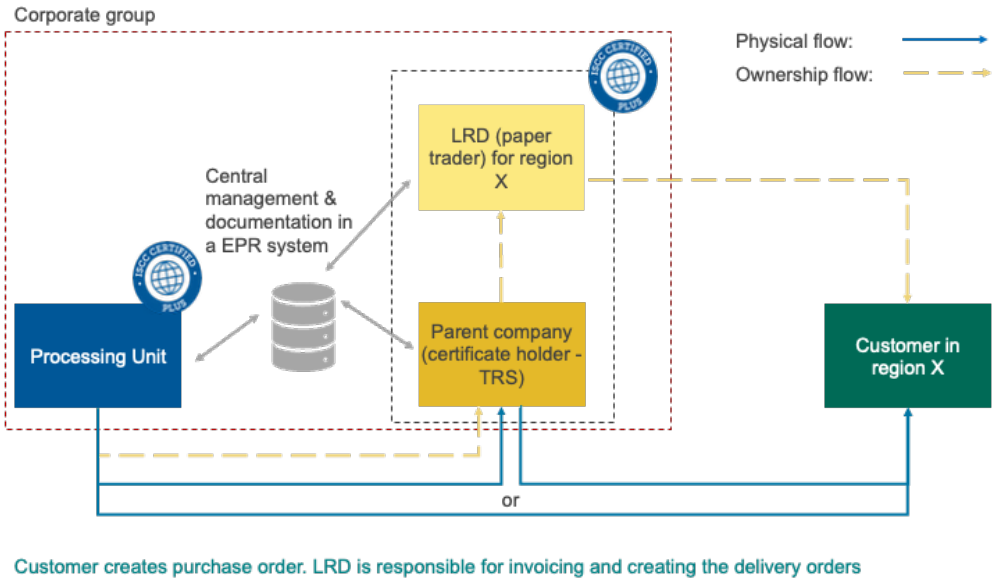


Figure 3: *Sales process flow for the Limited Risk Distributors (LRDs) Option 1*

Option 1 applies when the Processing Unit is part of the same corporate group as both the Parent Company and the LRD. The Parent Company may physically handle the material for some or all deliveries. Under this setup, the Parent Company must be certified under the Trader with Storage scope.

Under Option 1, the Sustainability Declaration flow may follow one of the following pathways:

1 The Processing Unit issues a Sustainability Declaration directly to the customer, when the material is delivered directly from the Processing Unit to the final customer.

2 The Processing Unit issues a Sustainability Declaration to the Parent Company, and the Parent Company issues a new Sustainability Declaration to the customer.

3 The Processing Unit issues a Sustainability Declaration to the Parent Company, and the LRD issues a new Sustainability Declaration to the customer.

When applying pathway 2 or pathway 3, and if a verifiable and auditor-approved system is in place, the Processing Unit may choose not to issue a Sustainability Declaration but instead document the internal material transfer within their ERP system. However, it must be demonstrated that the attribution of the sustainability characteristics follows the actual physical flow within the ERP system. Virtual transfer of sustainability characteristics between the Processing Unit and the Parent Company (Trader with Storage) are not permitted. The movement recorded in the ERP must reflect an actual transfer of physical material.

LRD Option 2:

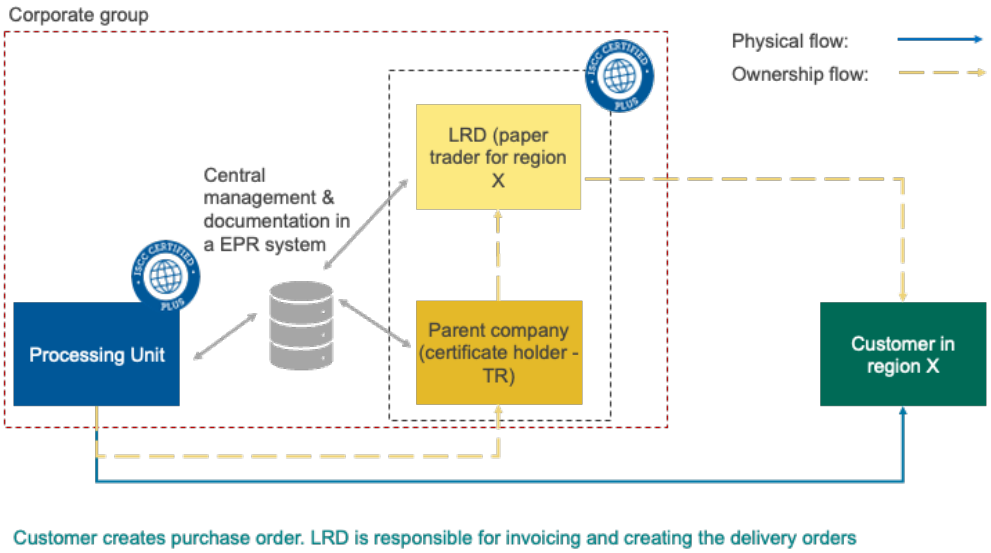


Figure 4: *Sales process flow for the Limited Risk Distributors (LRDs) Option 2*

Option 2 applies when the Processing Unit is part of the same corporate group as both the Parent Company and the LRD, and when the physical flow of the material always goes directly from the Processing Unit to the customer. In this setup, the Parent Company does not take physical possession of the material.

Under Option 2, the Sustainability Declaration flow may follow one of the following pathways:

1 The Processing Unit issues a Sustainability Declaration directly to the customer.

2 The Processing Unit issues a Sustainability Declaration to the Parent Company, and the Parent Company issues a new Sustainability Declaration to the customer.

3 The Processing Unit issues a Sustainability Declaration to the Parent Company, and the LRD issues a new Sustainability Declaration to the customer.

When applying pathway 2 or pathway 3, and if a verifiable and auditor-approved system is in place, the Processing Unit may choose not to issue a Sustainability Declaration but instead document the material transfer within their ERP system. However, it must be demonstrated that the attribution of the sustainability characteristics follows the actual physical flow within the ERP system. Virtual transfer of sustainability characteristics between the Processing Unit and the Parent Company are not permitted. The movement recorded in the ERP must reflect an actual transfer of physical material.

Under Option 1 or Option 2, when the LRD issues the Sustainability Declaration to the customer, the following additional conditions must be fulfilled:

- The LRD must be listed publicly in the certificate annex of the Parent Company.
- The LRD´s name must be stated in brackets on the Sustainability Declaration.
- The certificate number of the Processing Unit must be stated in the Sustainability Declaration.
- The certificate number of the Parent Company must be stated in the Sustainability Declaration.

LRD-Option 3:

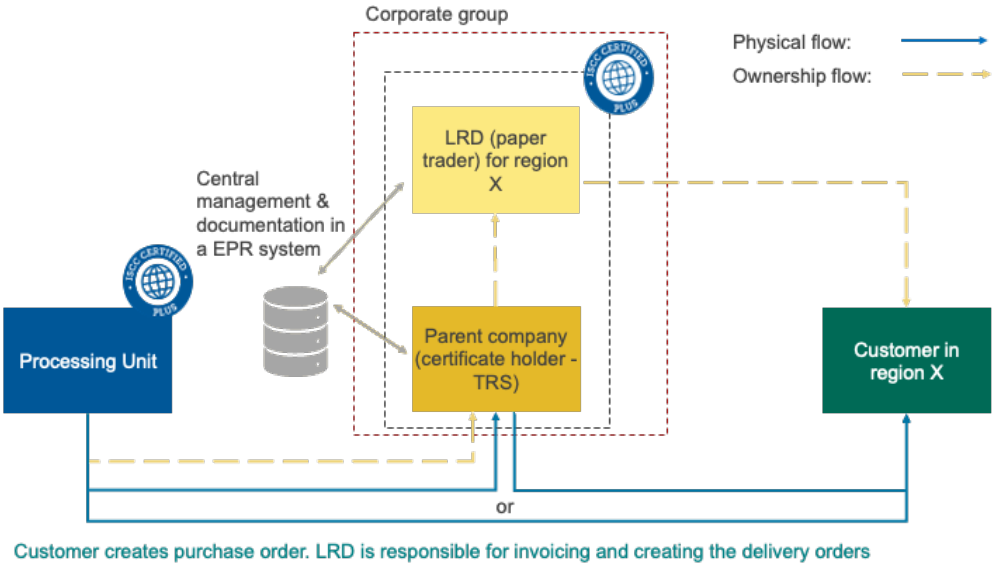


Figure 5: *Sales process flow for the Limited Risk Distributors (LRDs) Option 3*

Option 3 applies when the Processing Unit is not part of the same corporate group as both the Parent Company and the LRD. The Parent Company may physically handle the material for some or all deliveries. Under this setup, the Parent Company must be certified under the Trader with Storage scope.

Unter Option 3, the Sustainability Declaration flow may follow one of the following pathways:

1. The Processing Unit issues a Sustainability Declaration directly to the customer, when the physical delivery is made directly from the Processing Unit to the final customer.
2. The Processing Unit issues a Sustainability Declaration to the Parent Company, and the Parent Company issues a new Sustainability Declaration to the customer.
3. The Processing Unit issues a Sustainability Declaration to the Parent Company and the LRD issues a new Sustainability Declaration to the customer.

Under Option 3, when the LRD issues the Sustainability Declaration to the customer, the following conditions must be fulfilled:

> The LRD must be publicly listed in the certificate annex of the Parent Company.
> The LRD´s name must be stated in brackets on the Sustainability Declaration.
> The certificate number of the Parent Company must be stated on the Sustainability Declaration.

LRD Option 4:

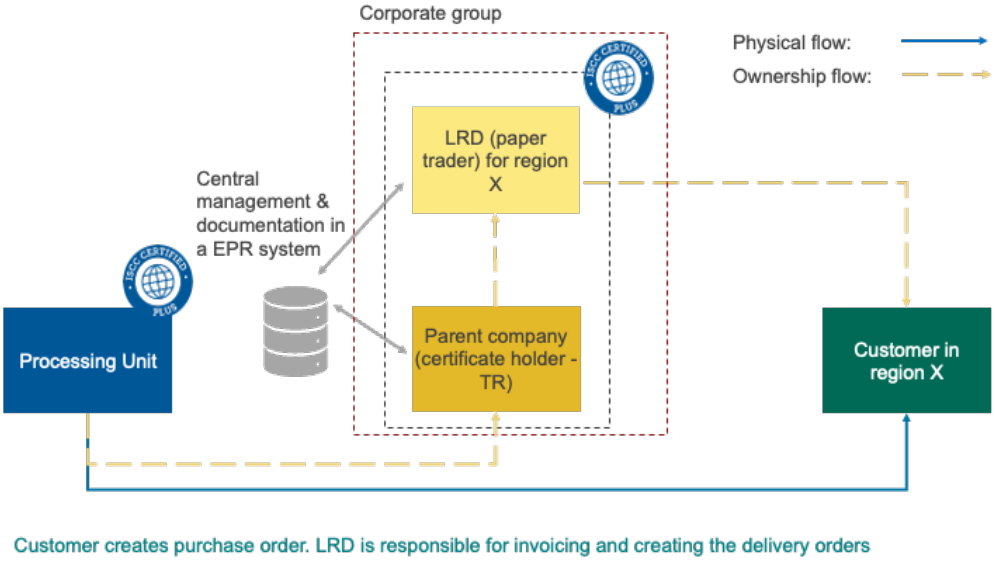


Figure 6: *Sales process flow for the Limited Risk Distributors (LRDs) Option 4*

Option 4 applies when the Processing Unit is not part of the same corporate group as either the Parent Company or the LRD, and when the physical flow of the material always goes directly from the Processing Unit to the customer.

Unter Option 4, the Sustainability Declaration flow may follow one of the following pathways:

1 The Processing Unit issues a Sustainability Declaration directly to the customer.

2 The Processing Unit issues a Sustainability Declaration to the Parent Company, and the Parent Company issues a new Sustainability Declaration to the customer.

3 The Processing Unit issues a Sustainability Declaration to the Parent Company and the LRD issues a new Sustainability Declaration to the customer.

When applying pathway 2 or pathway 3, if the Parent Company or the LRD receives a Sustainability Declaration from the Processing Unit that names the final customer as the recipient and the material is shipped directly from the

Processing Unit to the customer, the Parent Company or LRD may forward the original Sustainability Declaration, provided it remains unaltered. The Parent Company or LRD may also include supplementary information such as their own legal name (in brackets), as well as the certificate numbers of both the Processing Unit and the Parent Company, as required under ISCC PLUS. Conversely, if the Sustainability Declaration from the Processing Unit names the LRD as the recipient, and the LRD is responsible for the commercial delivery to the final customer, the LRD must issue a new Sustainability Declaration to the customer. In this case, the LRD's details must be provided in the "Supplier" section of the Sustainability Declaration, while the dispatch/shipping point must reflect the actual origin of the material—i.e., the Processing Unit.

Unless required under specific cases outlined in this subchapter, it is at the discretion of the Parent Company whether the certificate issued by the CB includes an annex listing the legal name(s) of all LRDs. Regardless of this, a complete and up-to-date list of all LRDs must always be submitted on the ISCC HUB.

The decision tree (Figure 7) below assists to determine a System User's eligibility to apply one of the four LRD group certification options.

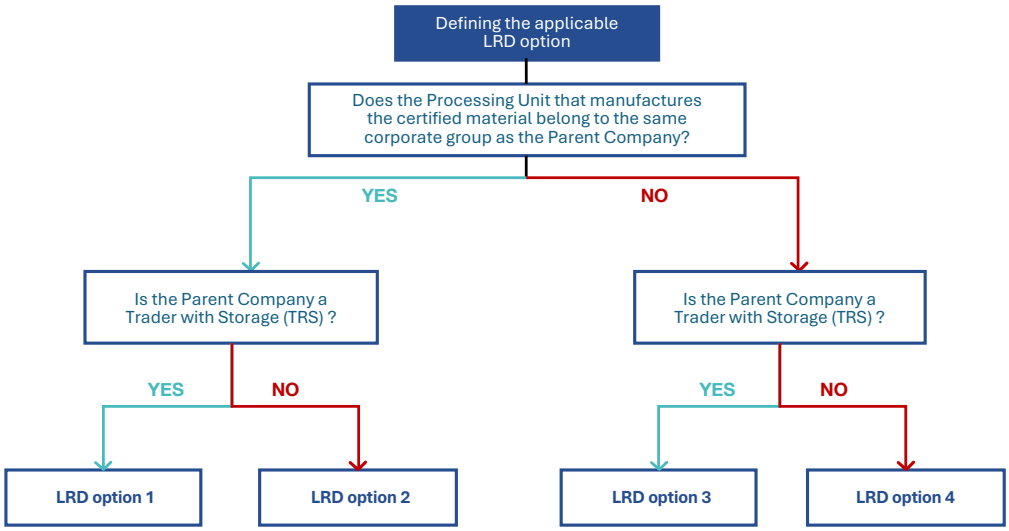


Figure 7: *Decision Tree for LRD Group Certification Options*

3.5.7. Group Certification Approach for Final Product Refinement Activities

The group certification approach for FPR activities (see Chapter 3.4.11) applies for certificate holders who outsource FPR activities to various sites in different locations. These sites may either belong to the same legal entity as the certificate holder or to an external company providing contracted services for the certificate holder.

A prerequisite for the FPR group certification is that legal ownership of the certified material must always remain with the certificate holder, referred as the FPR group head hereafter. The FPR group head shall always be certified under the FPR scope. If a Processing Unit outsources FPR activities, the FPR scope must be added to its certificate. The FPR group head (i.e., the material owner) is responsible for ensuring compliance with all relevant ISCC PLUS requirements, including conducting site-specific quantity-bookkeeping and issuing Sustainability Declarations.

Claims on outgoing materials from FPR group members

Under the FPR group certification approach, it is not allowed to make average claims across multiple FPR sites if the certified content of incoming materials or products varies between sites. To uphold full traceability and transparency, the certification claims must reflect the actual certified share at each individual site. This ensures that the integrity of certified material is maintained throughout the supply chain, and that declarations issued by the FPR group head are based on accurate, site-specific data.

Audit Requirements

Audit requirements and the documentation to be provided remain as outlined in this document and all other relevant ISCC PLUS System Documents (e.g. System Document *ISCC PLUS 201 – System Basics*, System Document *ISCC PLUS 204 – Risk Management*). All outsourced activities must always be properly recorded (e.g. through a centralized ERP system operated by FPR group head) and made available to ISCC. At the discretion of the System User, the certificate issued by the CB may include the list of the legal name(s) of the group members as an annex of the certificate. Regardless of this, a complete list and up-to-date list of all group members must always be submitted on the ISCC HUB.

Specifications for group certification of FPR activities:

- The certificate holder outsourcing FPR activities must be certified under the scope Final Product Refinement.
- Processing activities cannot be covered by the group certification approach.
- No further outsourcing of outsourced activities is possible.
- Only sites that physically receive certified material can be covered by the group certification approach.
- During the period of validity of a certificate, additional outsourced activities and sites related to the certified material can be added. Precondition is that the list of outsourced activities and sites must be kept up-to-date and the certification body must be informed about any changes to the list.
- The group members shall be audited on a sample basis. The sample size should be calculated according to the same requirements as in the Chapter 3.5.5. The risk level should be increased if external

companies are part of the group or if the outsourced activities are complex and may result in higher losses. A regular risk level shall only be applied if all group members are part of the corporate structure of the group head.

- For each sample audit of a group member, the sample audit procedure for FPR group members is required.
- For each outsourced site, a mass balance and all other relevant documentation (e.g. contracts, flow of material, conversion factor) must be kept, controlled and recorded by the group head.
- All external contractors that are group members must provide a "self-declaration for outsourcing" to the group head (see requirements below).
- A list of all group members must be submitted on the ISCC HUB. The list may be included on the group head´s certificate as an annex.

A signed self-declaration from each external group member must be provided to the FPR group head. By signing the self-declaration, the entity declares compliance with all legal obligations as well as the relevant ISCC PLUS requirements and confirms to give external auditors access to the premises to verify conformity with the ISCC PLUS requirements. No party other than the external group member is allowed to sign the self-declaration.

Requirements of the self-declaration for FPR external group members:

- Conformity with all applicable ISCC requirements.
- Must not make unauthorized use of the ISCC logos and claims (e.g. on other products or for its own communication).
- Declaration that no further outsourcing will be done.
- Accept the right of the certificate holder's CB to audit the site.
- Keep records of inputs, outputs, activities and delivery documentation associated with all material covered by the contract with the group head.

Tolling Agreements for FPR Activities

If an economic operator decides to be individually certified as an FPR site while simultaneously participating in an FPR Group Certification, this is allowed under a Tolling Agreement. However, only the following setup for the Tolling Agreement is applicable for FPR activities.

- The FPR that will be covered under the Tolling Agreement must be individually certified as per usual practice (with its own address).
- Both the material owner and the individually certified FPR site must exchange Sustainability Declarations for the physical dispatches.

- The material owner pays a “toll” to the individually certified FPR for FPR activities of the certified material.
- Individually certified FPR is responsible for keeping the site-specific quantity-bookkeeping.

Under this arrangement, both the material owner and the FPR site must be ISCC PLUS certified. The material remains under the ownership of the material owner, while the FPR site carries out the specified activities as a contracted service provider.

4. Requirements for Chain of Custody

Chain of custody

‘Chain of custody’ is a process, by which inputs and outputs and associated information are transferred, monitored and controlled as they move through each step in the relevant supply chain (ISO 22095:2020).

Input is a raw material or product that enters the system boundary of a system user at any stage of the supply chain, including both certified and non-certified materials used in the production process. Output is an intermediate or final product[19] that leaves the system boundary of a system user, generated at any stage of the supply chain, including all certified and non-certified products resulting from the production process. The link of sustainability characteristics and the physical material depends on the chain of custody method applied.

4.1. Chain of Custody Methods

This chapter provides a detailed description of the different methods of chain of custody[20] that can be applied according to the ISCC PLUS standard: Physical Segregation, controlled blending and mass balance.

Physical Segregation

Physical Segregation is the chain of custody method, under which materials with different properties are kept physically separated from each other on their journey through the supply chain. The physical mix of certified and non-certified material is not allowed during any stage (processing, storage and transport). There are two types of Physical Segregation, which are described in detail later in this chapter (see Chapter 4.4).

Controlled Blending

Controlled blending refers to a planned blending regime between materials with different specific characteristics resulting in constant, known and verifiable content of sustainability characteristics in the final product. Blending is obtained by mixing the feedstocks/ products without a chemical or biological reaction.

Mass balance

[19] *In case of First Gathering Point, Collecting Point, Trader and Trader with Storage scopes, the output can also be raw material.*

[20] *Please also see ISO 22095 for further information on Chain of Custody methods. From ISCC perspective the approaches are in general aligned with the standard. ISCC Standard requirements prevail for ISCC audits.*

Mass balance allows certified materials, with varying sustainability characteristics, to be physically mixed with non-certified materials. The characteristics and quantities of each batch must remain traceable within the mixture. The quantity of certified product with attributed sustainability characteristics (leaving the supply chain at any point) must not exceed the certified input amounts entering that point.

Book and claim

The chain of custody method known as book-and-claim is not allowed under the ISCC PLUS. With book-and-claim the traceability at any stage of the supply chain is not given, and no link between the sustainability characteristics and the physical material flow can be provided.

4.2. General Requirements for Chain of Custody Methods

Separate book-keeping and relevant sustainability characteristics

The system user must keep site-specific quantity-bookkeeping separately for all materials with different sets of sustainability characteristics, even if the chosen chain of custody method allows for the physical mixing of material. The sustainability characteristics that must be distinguished in the quantity-bookkeeping are described in the relevant chapters of the chain of custody method.

If materials are processed (or losses of material occur due to internal company processes), the appropriate conversion factor or consumption factor shall be calculated and applied to determine the amount of certified output correctly.

Deviations between physical and documented stock

Deviations between the amount of material physically in stock and the material documented in the quantity bookkeeping may occur. This can be the case, for example, if the amount of certified material as stated on a Sustainability Declaration is higher or smaller than the amount shown on the weighbridge for the actual received material. If during an audit a deviation of up to 0.5% is detected between the material physically in stock and the material in stock according to the quantity bookkeeping this can be accepted without further explanation. Any deviations larger than 0.5% have to be documented appropriately and verified during the audit. For the quantity bookkeeping the actual quantities should be used e.g. quantities that can be proven by weighbridge protocols or other such means. In case of incorrect information on incoming Sustainability Declarations the issuing party must be contacted (see also Chapter 3.3.2).

No multiple accounting allowed

The sustainability characteristics of a specific amount of certified material can be used only once and for one application only (also includes any statements such as ‘sustainable’ or ‘certified’ that are related to the specific amount). So-called “multiple accounting” is not allowed under ISCC[21]. Multiple accounting is a serious violation of ISCC requirements. The risk for multiple accounting increases if a company is simultaneously certified under more than one certification scheme.

[21] *The multiple accounting of individual sustainability characteristics is also prohibited.*

Awareness of multiple accounting risk

To minimise the risk of multiple accounting an eligible and high-level member of staff of the economic operator issuing the Sustainability Declarations has to sign a statement/declaration confirming the awareness that multiple accounting is not allowed.

Verification of documents for all schemes

To ensure that no multiple accounting takes place, the auditor must verify during the audit whether a company is certified under more than one certification scheme, by verifying audit reports, site-specific quantity-bookkeeping and other documentation of the schemes used. The economic operators must declare the names of all schemes they participate in and must provide the auditor with all relevant information and documentation on the schemes used (see System Document *ISCC PLUS 201 – System Basics*).

Information system

Each economic operator must operate an information system, which is able to keep track of the amounts of certified material sourced and sold. This could include, inter alia, a digital database, documentation with unique reference numbers for batches or similar.

The quantity-bookkeeping and physical mixture of sustainable material is limited to certain periodical and spatial boundaries:

Periodical boundary

Periodical boundary: The timeframe, in which the input materials and products with specific sustainability characteristics must be balanced. The timeframe (period) is maximum three months for all other economic operators. Only for producers of agricultural biomass or forest biomass and First Gathering Points sourcing agricultural or forest biomass, the timeframe is maximum twelve months.

Spatial boundary

Spatial boundary: The location (spatial entity) for which the chain of custody requirements must be applied. This means that they must refer to one geographical location with precise boundaries (site of operation). Chain of custody methods under ISCC PLUS are applied site-specifically.

Scope-specific mass balance

If an economic operator is certified under multiple scopes the quantity-bookkeeping must be specific to the certified scopes. This means the economic operator must be able to demonstrate which transactions have been made under each scope by indicating the input and output of each scope separately.

Transfer of sustainability characteristics

The transfer of sustainability characteristics from one economic operator to the other must always be accompanied by a physical transfer of material. The transfer of sustainability characteristics from certified material to fossil material is not possible, even if they have the same chemical composition[22]. The same applies for certified materials having different physical phases or states, as these states are determined by different energy levels.

[22] *Transfer of sustainability characteristic without actual contact of certified and non-certified material is possible only under the Mass Balance – Credit Method.*

4.3. Consideration of Losses

Losses

Losses refer to unrecoverable materials that are rendered unusable during a process (e.g., thermal degradation, evaporation) or physically discarded (e.g., production waste). During a process, any material that does not end up in a product or a co-product must be considered a loss. The losses must always be quantified and documented. In the quantity-bookkeeping, the losses must be subtracted from the sustainability characteristics that are transferred to the product.

Losses for all type of materials

Whenever materials, certified or non-certified, are processed, losses will occur naturally. When considering the losses, it is not possible to reflect the losses for only certified or non-certified material. Losses will instead always refer to all type of inputs based on the actual production setup and operational data.

Losses are accounted through conversion factor or consumption factor. Under ISCC PLUS, the system users must choose one method (conversion factor or consumption factor) for calculating the losses for the certification period. Once the method for calculating the losses is chosen, it is not allowed to change it within the certification period.

Operational data and site-specific

The determination of the conversion factor and consumption factor must be conducted based on the operational data of the processing unit, hence it is not allowed to determine the conversion factors based on theoretical data. The determination of conversion factors and consumption factors must always be site-specific.

Individual conversion or consumption factors

Each plant (e.g. Converter, Compounding, Polymerization plant), regardless of if they are combined under one certificate at one site or not, must have their own conversion or consumption factor. If they are located within one site (under one certificate), they must be clearly separated from each other for individual conversion or consumption factors. When processes are leading to products, sold individually, the conversion or consumption factor of the specific process must be applied.

Global conversion or consumption factor

On the other hand, if the processes are sequenced for a specific production of product(s) where the intermediate products of the individual processes cannot be sold separately, then a global conversion or consumption factor can be applied for the site, which takes into account of all the process steps.

4.3.1. Conversion Factors

Conversion Factor

Conversion factor (CF) is the first option, for system users to account for their losses from processing of certified materials. Conversion factors are applied to determine the amount of a specific product with certain sustainability characteristics, based on the amount of specific input material with certain sustainability characteristics.

Conversion factors must be provided for all the elements in the supply chain, where changes in quantities occur and must be applied, when there is change

in quantity of certified material due to processing, irrespective of the chosen chain of custody method. Conversion factors must be clearly documented and must be verified during the audit.

Product group

Conversion factors do not need to be calculated for each single product. 'Product groups'[23] can be defined to determine 'simplified conversion factors' for all products from this group. The conversion factor for the whole group of products can be determined based on the "weighted" average. Precondition for simplified conversion factors is a transparent description of the defined product groups. Also, there must be a clear link to respective data in the documentation system, which must be provided during the third-party audit.

Conversion factors can be applied for all chain of custody methods and MB options, except for Trace-the-Atom mass balance approach.

The conversion factor of a specific process for a certain period is calculated as follows:

CF (%) = Ao/Ai * 100

CF: *Conversion Factor*
Ao: *Amount of the process output material*
Ai: *Amount of the process input material*

For operations that do not result in a change of quantity of the material, such as the storage of materials, the conversion factor (CF) can be assumed to be 1 (CF=1).

Furthermore, it should be noted that it is not possible to calculate a conversion factor that is greater than one.

4.3.2. Consumption Factors

Consumption Factor

The Consumption Factor (ConsF) represents the amount of certified inputs that have been consumed in order to produce the desired amounts of output(s). It is possible to determine the ConsF for each input individually and translate this to the output(s). Hence, the consumption factor might be more accurate in terms of certified shares especially in the case of multistep reactions in comparison with the overall conversion factor applied for the whole process.

In the case of chemical reactions, the application of consumption factors requires detailed knowledge about reaction pathways. Bills of material and/ or process orders can be used for the consumption factor calculation. They must be updated and adjusted based on actual consumption data on a regular basis (e.g. annually).

The consumption factor can be applied for any process, where direct connection between individual inputs or parts of inputs to the outputs is

[23] *The product groups refer to the same material entries in the ISCC PLUS List of Eligible Materials.*

available. Therefore, the consumption factor can be applied for all chain of custody methods and MB options. It is mandatory to use consumption factor for the cases below:

- Trace-the-Atom Approach (see Chapter 4.6.4)
- Consideration of Hetero Atoms (see Chapter 4.6.7)
- Post-industrial or atmospheric CO2 reacting with certified inputs (see Chapter 4.6.8)

The consumption factor of a specific product for a certain period is calculated as follows:

$$ConsF_i = (A_O \times rel.share_i) / A_i$$

ConsF: Consumption Factor
Ao: Amount of output with contribution of input i
Ai: Amount of the process input material
rel. $share_i$: share of output that is derived from certified input (i)

4.4. Physical Segregation

Hard and Soft IP

Physical Segregation is the chain of custody method, under which certified and non-certified materials are kept physically separated.

Two levels of Physical Segregation can be applied:

- Hard Identity Preservation (IP)[24]: The physical mix of certified and non-certified material is not allowed. Furthermore, certified materials with different sustainability characteristics must be kept physically separate throughout the supply chain.
- Soft Identity Preservation (IP)[25]: The physical mix of non-certified and certified material is not allowed. However, the physical mix of certified materials with identical sustainability characteristics but different origins, is allowed throughout the supply chain.

Under Physical Segregation, it must be possible to identify batches of material throughout the entire production and distribution process.

Physical Segregation can be achieved by:

1. Setting up parallel processes for production, storage and transport.
2. Setting up sequential (periodical) processes at the site of production, storage or transport.

[24] Identity Preserved model according to ISO 22095:2020
[25] Segregated model according to ISO 22095:2020

Under both Hard IP and Soft IP Physical Segregation models, the conversion and consumption factors can be applied for the calculation of losses and amount of certified product(s).

4.4.1. Hard Identity Preserved

Physical segregation of all batches

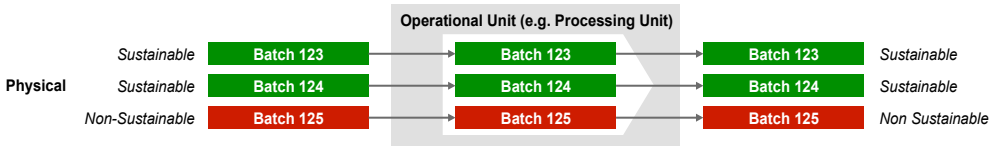
Under Hard IP, each certified batch of material can be physically identified throughout the entire production, transportation and trading processes, and distribution process. The complete physical separation of the material from non-certified materials and certified materials with different sustainability characteristics, must be ensured.

Identity Preserved

Since the mixing of certified material with different characteristics is not allowed, the identity of the material between the quantity-bookkeeping and the physical product is preserved under Hard IP. The Hard IP option can only be applied, if the input material was also physically segregated under Hard IP throughout the whole upstream supply chain.

The quantity bookkeeping of the batches is always identical to the physical status (see also Figure 8), i.e. batches 123, 124 and 125 are segregated physically and in the bookkeeping.

Hard IP can be applied if batches 123 and 124 differ in terms of at least one of the sustainability characteristics.



Book-keeping

Input			Company Internal Process			Output		
Batch	Kind	Amount (t)	Batch	Kind	Amount (t)	Batch	Kind	Amount (t)
123	Sustainable	500	123	Sustainable	500	123	Sustainable	500
124	Sustainable	1500	124	Sustainable	1500	124	Sustainable	1500
125	Non-Sustainable	1000	125	Non-Sustainable	1000	125	Non-Sustainable	1000
Total		3000	Total		3000	Total		3000

Figure 8: *Physical Segregation of all Batches (CF=1)*

Figure 9 illustrates that the sustainability characteristics of the incoming batches are the same apart from the country of origin of the raw material. For incoming batch 123 the country of origin is Canada while for batch 124 the country of origin of the raw material is the USA. This means that batch 123 and 124 can neither be merged physically, nor in the bookkeeping. The different countries of origin are stated on both the incoming and outgoing Sustainability Declarations. Therefore, the sustainability characteristics as stated in the bookkeeping match with the characteristics of the physical batches.

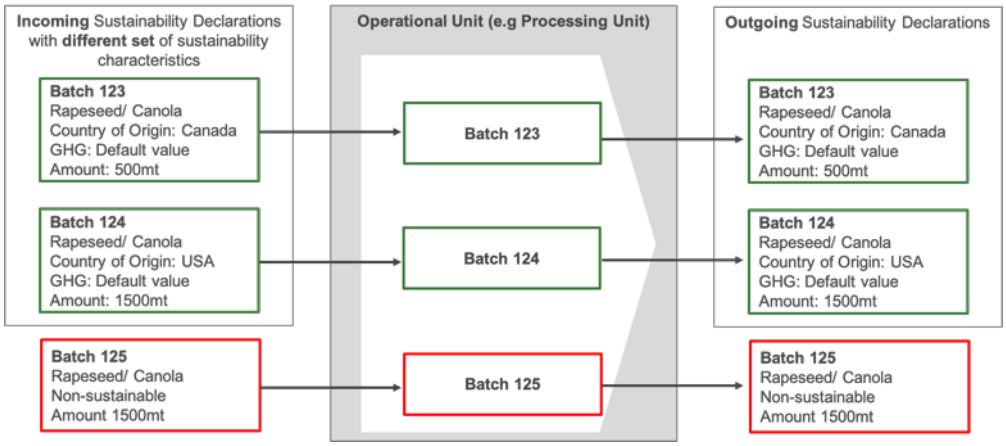


Figure 9: *Assigning Sustainability Characteristics to outgoing Batches via Sustainability Declarations (CF =1)*

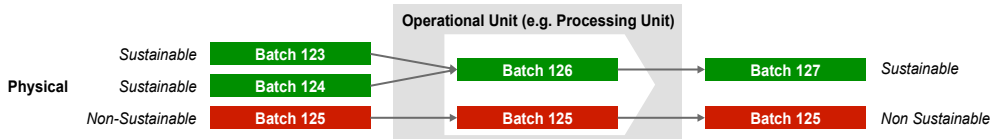
At no point in time can more material with specific sustainability characteristics be withdrawn than the equivalent material that has been added (e.g. the outgoing batch 123 shall not exceed 500 tons). The outgoing batches can be split into sub-batches with different quantities, as long as the sum of all sub-batches does not exceed the total quantity (e.g. outgoing batch 123 could be split into three sub-batches of 100, 150 and 250 tons with the same sustainability characteristics).

4.4.2. Soft Identity Preserved

Mixing materials with different origins

The Soft IP model allows batches of certified material to be physically mixed, if sustainability characteristics are identical but origins are different (see Figure 10). It also requires the physical separation of the certified material and non-certified material. The Soft IP option can only be applied, if the input material was also treated as Soft IP or Hard IP throughout the whole upstream supply chain.

In the quantity-bookkeeping, batches of certified materials with different sustainability characteristics must be kept separated. Only batches with identical sustainability characteristics with different origins can be merged in the bookkeeping.



Book-keeping	Input			Company Internal Process			Output		
	Batch	Kind	Amount (t)	Batch	Kind	Amount (t)	Batch	Kind	Amount (t)
	123	Sustainable	500	126	Sustainable	2000	127	Sustainable	2000
	124	Sustainable	1500						
	125	Non-Sustainable	1000	125	Non-Sustainable	1000	125	Non-Sustainable	1000
	Total		3000	Total		3000	Total		3000

Figure 10: *Physical Segregation of Sustainable and Non-Sustainable Batches (CF=1)*

If batches 123 and 124 have identical sustainability characteristics but different countries of origin of the raw material, the Sustainability Declarations of the outgoing batches 127 and 128 must contain the same sustainability characteristics as the incoming sustainability characteristics of batches 123 and 124. They cannot exceed the quantity of 500 tons or 1500, respectively tons (see Figure 11).

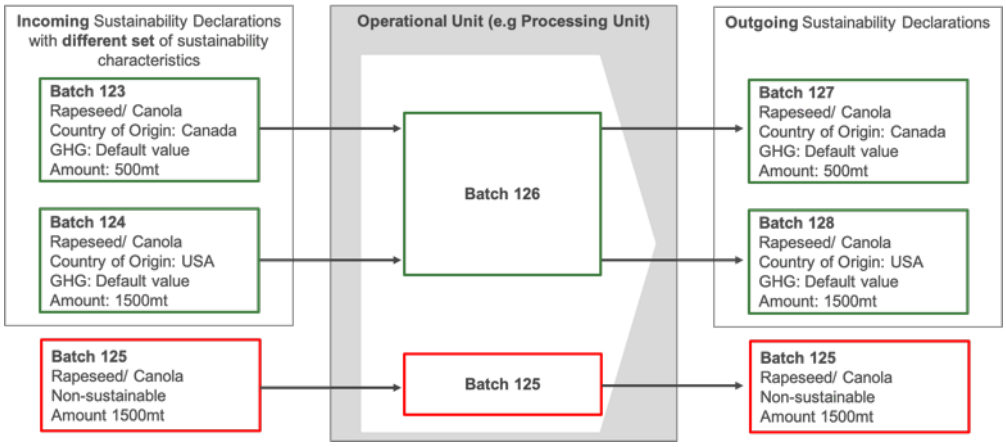


Figure 11: *Assigning Sustainability Characteristics to Outgoing Batches via Sustainability Declarations (CF=1)*

If a physical mixture of certified material is split up, the sustainability characteristics from the bookkeeping can be assigned to any physical batch of certified material. Batches of output material can be split up into sub-batches, as long as the total quantity of the sub-batches with the respective sustainability characteristics does not exceed the total quantity of the certified material.

At no point in time can more material with specific sustainable characteristics be withdrawn than the equivalent material has been introduced to the system (e.g. the outgoing batch 127 in Figure 11 shall not exceed 500 tons).

4.5. Controlled Blending

Controlled Blending

Controlled Blending is the second chain of custody option available under ISCC PLUS. This model allows for the mixing of certified materials and non-certified materials in known proportions. Under Controlled Blending, it must be ensured that the output has a constant and verifiable certified content.

This Chain of Custody method is common for in blending processes, where certified and non-certified materials are physically mixed without change in their chemical structure.

For single-input, single-output scenarios[26] under Controlled Blending, the product retains the same certified proportion as the input. Furthermore, if the inputs have already been blended, consisting of both certified and non-

[26] One type of input (both certified and non-certified) processed for one type of product

certified materials, the certified share of the output is calculated according to the ratio of certified to non-certified content in the input, with any input losses reflected to both certified and non-certified portions.

Key feature of Controlled Blending is that the ratio between certified and non-certified inputs must be known at all times, to determine the percentage of the certified content in the product and to ensure the chain of custody requirements are fulfilled.

Clear documentation of the certified percentage of each output must be ensured. The percentage of controlled blended output shall be achieved by monitoring and documentation:

- The quantity of physical inputs and outputs must be recorded at the site.
- If the input material is received under the Chain of Custody method Controlled Blending, percentage of certified material in the input must be determined before processing.
- The certified share of the product cannot exceed the proportion of certified share of the input material received.
- The certified percentage of the blended material must be documented and physically tracked throughout production, transport, and storage.

The Controlled Blending chain of custody method can only be applied, if the input material was also handled with Controlled Blending or Physical Segregation, throughout the whole upstream supply chain.

To ensure compliance with the chain of custody requirements, after the blending procedure, certified material (controlled blended) and non-certified materials must be physically segregated during production, storage, and transport. Blended material must be clearly identified throughout the process. Lastly, volume reconciliation should be conducted regularly to verify that all outputs align with the input ratio over a defined period, such as per batch, shipment, or storage cycle.

Under Controlled Blending, both conversion factor and consumption factor can be applied to account for the losses.

4.6. Mass Balance

Mass Balance

Mass Balance is the third chain of custody method. Under the mass balance approach, the certified and non-certified materials can be physically mixed but kept segregated on a bookkeeping basis.

Transfer of sustainability characteristics

When certified and non-certified material are processed together, then it is possible to attribute the sustainability characteristics (equivalent to the amount of the certified input) to the output, considering the losses and the mass balance attribution guardrails. Similarly, when both certified and non-certified

materials of the same type are stored together within the same physical compartment (i.e. within a single tank or pipeline), the amount equivalent to the certified input material withdrawn from this compartment can be considered as certified.

Mass Balance Methods

There are two different methods for the implementation of the mass balance model[27]:

- Rolling average percentage method: This method is applicable, when the proportion of used input(s) with specific sustainability characteristics fluctuates over a defined time period (averaging period) and allows an average percentage claim to the output produced.
- Credit method: In this method, the certified input(s) is attributed to dedicated output volumes, which leads to output volumes with and without attributed certified content in a given period (mass balance period). Under this method, recorded output amount of each type shall be equivalent to the physical input, taking into account the losses[28]. The credit amounts for each type of input used and output attributed must be kept correctly for every period. More information on Credit Method can be found in Chapter 4.6.4.

The mass balance claims shall clearly communicate when the sustainable characteristics are attributed by either the rolling average percentage method or the credit method.

4.6.1. Terms & Definitions

Mass balance accounting or mass balance bookkeeping: is the term that refers to quantity-bookkeeping records. It signifies the inventory of certified input materials and output material, available credits and reallocation of credits between batches within the established guardrails. The physical materials in relation to sustainability characteristics must be kept correctly.

Mass balancing or mass balance calculation: on the other hand, is the term used as a general name for attribution or determination of certified share. This term includes the calculation for attribution of sustainability characteristics from input to output or calculation for the determination of percentage and amount of product originating from certified input. The calculations must account for the losses via conversion factor or consumption factor (see Chapter 4.3).

Attribution refers to the process of assigning sustainability characteristics (credits) from certified input materials to specific output products, in proportion

[27] ISO 22095:2020
[28] ISO/DIS 13662:2025

to the certified share of the inputs and within the rules and boundaries defined by the mass balance system.

Certified share: Refers to the percentage/share of the atoms/molecules in a chosen output originating from the certified input(s) or the percentage/share of the attributed credits to the total amount of material. Under the Trace-the-Atom approach, the certified share is calculated based on the chemical reaction and respective amount of atoms originating from the sustainable input and present in the output(s).

Certified amount: The amount of material that the sustainability characteristics is actually attributed to. Certified amount refers to the exact amount attributed to an output (or determined amount) and can be less than the total amount of the output produced. For the attribution approach, it depends on the attributed amount within the guardrails. On the other hand, for the determination (Trace-the-Atom) approach, it can be calculated by multiplying the certified share (based on the chemical reaction) and the amount of output that is produced with certified input(s).

Chemical connectivity refers to the connection between the input and output during processing. It depends on the interaction between different input materials as they move through various stages of the process. This involves the understanding of production process, reaction mechanism and how these inputs are reacting with each other to produce the end-product(s).

The term chemical connectivity refers to both:

- Chemical link: The theoretical possibility of chemically converting the certified input(s) to the output(s).
- Process feasibility: Availability of technical infrastructure to produce the output or part(s) of output by processing the certified input materials.[29]

If chemical connectivity is ensured, it means that process outputs (products) can contain molecules or atoms of the certified input, after its processing (or chemical reaction).

4.6.2. General Requirements for Mass Balance

Mass Balance

Under mass balance, the physical mixing of material with different sustainability characteristics and the mixing of certified and non-certified material is allowed, while ensuring that the sustainability characteristics remain assigned to physical batches of material on a bookkeeping basis.

Loss of individual properties

Due to the physical mixing, the mixture loses its individual properties. The sustainability characteristics of materials can therefore only be determined via the bookkeeping. This requires the mass balance accounting and the

[29] This requirement is beyond theoretical possibility. The infrastructure/machinery to produce the output (at least partially) from the certified input must be in place, operational and must have been used within the last two mass balance period to produce the output.

verification of the mass balance accounting with respect to the chosen period for balancing.

The mass balance must contain information concerning all the sustainability characteristics and the sizes of the batches with the different sustainability characteristics that are mixed. The information must remain assigned to the mixture. The sum of all batches that are withdrawn from the mixture must have the same sustainability characteristics in the same quantities as the sum of all the batches that were added to the mixture. This balance must be achieved over an appropriate period of time.

Site-specific mass balance

Both the mass balance bookkeeping and mass balance calculation must be site-specific, i.e. they shall at least be operated at the level of a geographical location with precise boundaries within which the materials can be mixed. “Sites” refer to locations/addresses of individual legal entities.

A separate mass balance bookkeeping and mass balance calculation shall be set up for every production site, even if they are under the same legal entity. Also, for the external storage facilities used or storage facilities certified as part of a logistics network, a separate mass balance bookkeeping is mandatory. In these cases, separate mass balance bookkeeping for each storage site must be kept. If more than one legal entity is operating at one site, each legal entity is required to operate its own mass balance bookkeeping and mass balance calculation.

Scope-specific mass balance

If an economic operator is certified under multiple scopes the mass balance accounting and mass balance calculation must be specific to the certified scopes.

The amounts processed in different processing steps should be covered in separate mass balances unless it is ensured that the entire input is processed into the same output. A certified processing unit must be able to demonstrate the types and amounts of material that are physically processed in the certified unit. Exact descriptions of incoming and outgoing materials per certified scope are essential. If a processing unit buys and sells certified material but does not physically process the material, this transaction must be covered under the certification scope Trader. For each mass balance the complete documentation must be available for verification during the audit.

Material-specific mass balance

Mass balances must be kept material-specific indicating the respective raw material.

Physical link required

Certified material can only be included in a mass balance bookkeeping/calculation, if it is physically received at the site of the economic operator covered by certification. It is not possible to add certified material to a mass balance bookkeeping without the physical intake of the material at the site for which the mass balance is kept.

Sustainability characteristics

The same sustainability characteristics as provided on Sustainability Declarations must be distinguished in the bookkeeping. Within the mass

balance bookkeeping, batches of input material can be merged if they have the same sustainability characteristics and are handled under the same chain of custody option. It is not possible to merge batches of input materials freely within the bookkeeping system, if they have different sustainability characteristics, or if they have none at all, or if they are handled under different chain of custody options.

Downgrading

It is possible to merge specific batches of certified input materials in the mass balance bookkeeping, if certain sustainability characteristics are downgraded. However, this is only possible if all other sustainability characteristics except for the one being downgraded, are identical. The term "downgrading" refers to the transition of certified materials from higher to lower sustainability characteristics.

When it comes to downgrading between different chain of custody methods, it is only possible to downgrade from a chain of custody method that has stricter requirements to a chain of custody method that has comparatively less stricter requirements (e.g., from Soft Identity preserved to Mass balance), and not the other way around.[30]

Under mass balance, it is possible to downgrade when:

1 System users want to have a higher quantity of certified material with a similar set of sustainability characteristics.

2 The complete information about the sustainability characteristics is not available for a batch of certified materials.

From \ To	Pre-consumer	Post-consumer	Mixed/Unspecified
Pre-consumer	X	No	Yes
Post-consumer	No	X	Yes
Mixed/Unspecified	No	No	X

Table 2: *Downgrading for Waste-Status (X – represents the same category – downgrading is not possible, Yes – represents downgrading is possible, No – represents downgrading is not possible.)*

Waste Status

If certified material is received with a Sustainability Declaration that states "Pre-consumer" waste material and is physically mixed with a certified material of "Mixed/Unspecified" status, the resulting batch can be downgraded to "Mixed/Unspecified", instead of having split up batches with two different waste status.

In another instance, if an ISCC PLUS certified system user receives bio-circular feedstocks (UCO, agricultural, forestry, and industrial residues etc.) or

[30]Order of strictness for the chain of custody methods under ISCC (most strict to less strict) – 1) Hard IP 2) Soft IP 3) Controlled blending 4) Mass Balance

products from an ISCC EU certified system user, the waste status may not be clear, hence the material cannot be assigned as “pre-consumer” or “post-consumer” waste. As a result, it must be classified as “mixed” or “unspecified” in accordance with the ISCC PLUS requirements.

Certified materials with Add-ons (e.g. FSS Add-on) can be downgraded to less or no Add-ons applied.

Multi-site credit transfer

With respect to the ‘multi-site credit transfer option’ i.e., applicable under the Credit Method (Chapter 4.6.4), a System User only can downgrade from certified materials that have not undergone ‘multi-site credit transfer’ to materials that have applied the ‘multi-site credit transfer’.

“Raw material” and “country of origin” are optional information in the Sustainability Declaration. If the system user receives this information, they can keep this information to ensure a higher level of sustainability characteristics for the outgoing products. However, it is possible for the system user to also downgrade the material by removing both “raw material” and “country of origin” from the outgoing batches. It is not possible afterwards to retrieve this information in the downstream.

Mass Balancing Guardrails

The following guardrails/rules must be applied for the correct application of the mass balancing options:

1 Chemical connectivity: Chemical Connectivity must be ensured for the system user to attribute the sustainability characteristics from the certified input to the outputs (see Chapter 4.6.2)

2 Physical Output: The amount of attributable credits cannot be higher than the physical output (certified and non-certified) in a mass balance period. It is not possible to attribute to a quantity of output, which is not produced at the site within a mass balance period.

3 Operational Data: Within the traceability system all data related to inputs, outputs, losses, generation, and attribution must collected and documented. All data used must be valid for the relevant evaluation period. Each certified output material/product with specified characteristics must be calculated defined conversion or consumption factor, reflecting relevant inputs with specified characteristics. The conversion factor/consumption factor must be determined based on operational data.

4 Site specific: It must be ensured that the mass balance is done site specific. Under ISCC PLUS, both the mass balance accounting and mass balance calculations (the attribution/determination) must be done on a site level. Company level mass balance is not possible.

Transparency

Although it is not a limitation on the mass balance approach, ISCC PLUS has the requirement when it comes to the transparent communication about the

use of mass balance approach. It is crucial that the system users are communicating the use of mass balance with their downstream supply chain. This transparent communication within the supply chain includes the transfer of information on the used mass balancing option and on multi-site credit transfer, which must be communicated via Sustainability Declaration. Transparent communication is also critical for the end product communications and claims (for further details, see Guidance Document *ISCC 208 – Logos & Claims*).

4.6.3. Rolling Average Percentage Method

Rolling Average Percentage Method is a relatively stricter mass balance method as the certified input materials must physically be used for the production of attributed outputs.

Under the Rolling Average Percentage Method, system user must define the time period, under which they want to make an average claim regarding the certified share of the product. This time period is referred as 'averaging period'. An averaging period can be maximum of 3 months, and it cannot be shorter than 1 day. As a minimum requirement for averaging, the minimum averaging period cannot be shorter than the amount of time required to produce minimum two batch (unit) of products.

Averaging periods can be defined by the companies based on their production cycles within the limitations above. Once set, averaging period cannot be changed for at least 6 months. It is not possible to attribute the sustainability characteristics to any of the batches produced out of the averaging period. System users can only keep the attributed products in their bookkeeping, if the physical batches from the averaging period is still in their inventory.

Moreover, to ensure that the rolling average percentage period is properly initiated, the received material must be used (processed) within the defined averaging period. Introducing the material into the system, such as storing it in stock or inventory, is not sufficient to attribute the sustainability characteristics to the output.

For each averaging period, the following documentation on the mass balance accounting must be available and will be verified during the audit:

- Start and end date of averaging period
- Inventory of input and output at the beginning of the averaging period
- Amount and description of incoming and outgoing material during the averaging period
- Amount of certified product that can be transferred to the next period (if available) (physical batches must be in the inventory)
- Amount of certified input material from the previous period (if available) (physical batches must be in the inventory)

- Conversion factor/consumption factor (if applicable)

Under this method, the system users shall calculate and disclose the average claim either by:

- The weighted average mass of inputs and/or outputs belonging to a specific material category. or;
- The weighted average percentage of a material or product with a specific characteristic, calculated by dividing its mass to the total input or output mass.

Both the conversion factor or consumption factor (as described in Chapter 4.3) can be used to account for the losses and shall be considered when calculating the rolling average percentage for the amount of certified product(s).

4.6.4. Credit Method

Under the ISCC PLUS Credit Mass Balance Method, credit refers to a quantified unit, representing the sustainability characteristics derived from certified input material.

Attributable credits are the sustainability characteristics that are derived from the certified input and are calculated and assigned accordingly to the output, based on the mass balance attribution guardrails. The amount of attributable credits refers to the quantity of the credits that can be attributed to a particular output within the mass balance calculation guardrails. The amounts of attributable credits derived from each type of certified input used and attributed to products must be kept and documented correctly and must be verified during the audit.

For mass balance calculations, a defined timeframe must be established by the end of which the total mass of incoming and outgoing batches, along with their corresponding sustainability characteristics, must be balanced. Under ISCC PLUS Credit Mass Balance Method, the maximum mass balance period is three months.

There is an exception for producers of agricultural biomass (Farms or Plantations), forest biomass (Forest Sourcing Areas) and First Gathering Points, sourcing only agricultural biomass or forest biomass. For those economic operators, mass balance period can be up to twelve months. However, if the mass balance period is longer than three months it is not possible to go into a deficit within the mass balance period (i.e. it is not possible to sell more material as certified, than is available amount in the mass balance bookkeeping).

System users may choose a period less than three months, for example, one month. The rationale for the maximum period of three months is twofold:

- A shorter mass balance calculation period does not offer additional security against fraud.
- Reducing the period to much shorter timeframes will increase the costs significantly and reduce the flexibility for market players without improving security and sustainability in the supply chain.

Mass balance periods shall be continuous in time, i.e. gaps between mass balance periods shall not occur. This means that even for periods in which no movement of certified material occurs, mass balance bookkeeping must be kept. The mass balance periods for the certification period (i.e. start and end date) must be clearly documented by the system user and must be verified during the audit. Any changes in the mass balance period must be clearly documented by the economic operator and must be reported to the certification body before the adjustment.

For each mass balance period the following documentation on the mass balance accounting must be available and will be verified during the audit:

- Start and end date of mass balance period
- Inventory of input and output at the beginning of the mass balance period
- Amount and description of incoming and outgoing material during the mass balance period
- Amount of credits that can be transferred to the next period (if available)
- Amount of credits from previous period (if available)
- Conversion factor/consumption factor (if applicable)

Credit Transfer under Credit Method

Under Credit Method, it is possible to transfer credits from one mass balance period to the next. This is possible regardless of the amount of material in stock (certified and non-certified) at the end of the mass balance period. It should be ensured that a company is continuously certified, i.e. that no time gaps between certification periods occur.

A negative mass balance is not permitted under ISCC. A negative mass balance occurs if the dispatched material is more than the received at the end of a mass balance period (including the already existing inventory of certified material at the beginning of the mass balance period). If a negative mass balance occurs at the end of a mass balance period, the certified company must inform the certification body immediately and without being requested.

At the end of a mass balance period the quantity bookkeeping either has to be balanced or have credits of certified material that can be carried forward. To verify if the amounts of certified input and output material are balanced at the

end of the period or if credits occur, the calculations and the bookkeeping of the system user must include amounts of incoming certified input material, which has been processed; amounts of certified input material (in stock); amounts of outgoing certified output material and amounts of certified output material (in stock). Based on the later, the conversion or consumption factor must be applied on the input in order to account correctly for the output.

Transferring credits between materials is only allowed for identical products or product groups[31]. Furthermore, the respective sustainability characteristics have to be reflected when transferring credits between materials. For example, it is not possible to transfer credits between materials with a different scope of raw material certification.

Mass balances shall be kept strictly site-specific. Credits achieved within one site's mass balance cannot be transferred to another site's mass balance. An exception applies for processing units and storage facilities[32] certified under ISCC PLUS. They can transfer credits between different sites under the following conditions:

- Supplier and recipient of credits must be part of the same company/corporate group/joint venture (see specification below).
- Sites must be located within national borders or within neighbouring countries (sharing an inland border).
- Sites must have the same scope of certification.
- Applicable only for the same kind of outgoing intermediate or final product (the output on the certificate annex has to be the same).
- Mass balances must be kept site-specific.
- ISCC certification must be in place for all sites.[33]
- Certificates can be issued by differing certification bodies if full documentation is available.

Under ISCC PLUS it is also possible to transfer credits between sites that are part of the same or corporate group or joint venture. A corporate group is defined as a number of consolidated legal entities guided by a parent company. Precondition for the latter case is that the company transferring credits to another operational unit (being part of the JV) holds at least 50% in the other company. This has to be proven accordingly to the auditor. The other additional requirements for multi-site credit transfer under ISCC as stated above remain unchanged and have to be equally fulfilled.

Operations that are both certified under ISCC EU and ISCC PLUS can transfer credits from ISCC EU to ISCC PLUS mass balances, if the material is "ISCC

[31] Please refer to the ISCC List of Eligible Materials
[32] Not applicable for raw materials and audit scopes farm/plantation, forest sourcing area, FGP, PoO, CP, FPR
[33] For storage facilities, they must be covered under one of the options described under Chapter 3.4.8

Compliant" and the other sustainable characteristics are identical. However, it is not possible to transfer credits from ISCC PLUS to ISCC EU mass balances.

Mass Balancing Options under Credit Method

Under credit method, the sustainability characteristics can be attributed to the output within certain guardrails and limitations. Different mass balancing options under Credit Method leads to different amounts (or shares) of certified products. Different mass balancing approaches are shown in Figure 12.

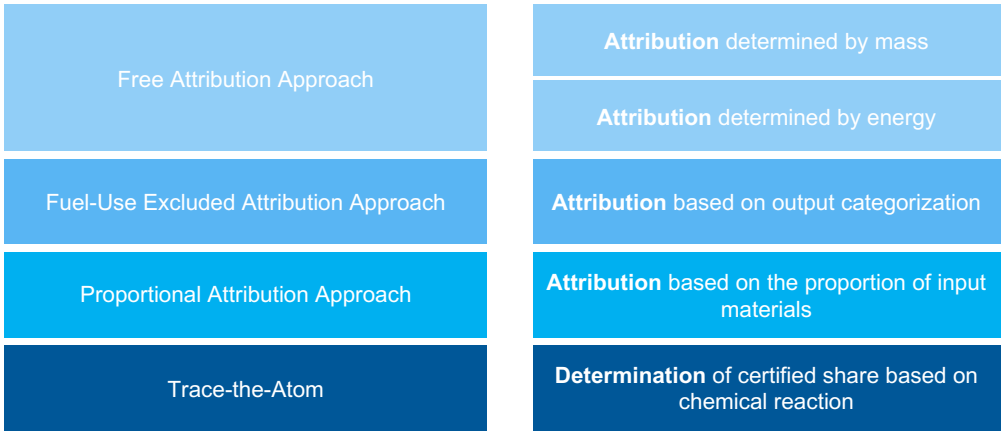


Figure 12: *Overview on mass balancing options under ISCC PLUS Credit Mass Balance Method*

Free Attribution Approach

Under Free Attribution Approach, the system user can attribute the sustainability characteristics from the certified input materials to the products, within the system boundary and the guardrails described in Chapter 4.6.2. This attribution can be done irrelevant of the proportion of the certified input material to the other inputs and categorisation of the products. System users can freely attribute the sustainability characteristics from the certified input(s) to one (or multiple) products that can be attributed to.

In instances where multiple processes lead to the production of an intermediate product that is sold individually, the conversion factor(s) relevant to the process steps from which the intermediate/final product originate must be applied. Thus, the focus of the analysis is exclusively on the relevant input, output and losses of the process[34].

In order to calculate the certified share, the amount of certified input, product (output) and the losses can be described based on their mass (Option 1: Attribution determined by mass) or based on their energetic value (Option 2: Attribution determined by energy).

In addition to the mass balancing guardrails in Chapter 4.6.2, there is an additional guardrail under Free Attribution Approach.

[34] Process losses include parts of the material feedstocks (inputs) of a process, which are used energetically and therefore not converted to products but to waste streams like CO2 (e.g. the part of ethylene in ethylene oxide production which is oxidized to CO2 and hence used for energetical purposes in the process). This does not include the internal energetical usage of fuel products (outputs) of a process, e.g. a steam cracker (no "auto-consumption exempt" under certified free attribution).

Reflection of input characteristics: Under Free Attribution, it is possible to attribute the sustainability characteristics to the output beyond the proportion of the certified input to the total inputs. In such cases, it must be ensured that sustainability characteristics are attributed to output(s) or part(s) of output(s), which is "similar-in-nature" to the input with specified characteristics. Similar-in-nature refers to function and composition of the material[35].

Based on the application regarding the reflection of input characteristics, it must be transparently communicated in the Sustainability Declaration.

Attribution Determined by Mass

The first option of mass balancing that falls under the free attribution approach is attribution determined by mass. Under this approach, the amount of attributable credits is calculated based on the masses of inputs and outputs. The amount of the input material with specific sustainability characteristics coming into the system boundary is turned into credits that is for the input material. Then, the amount of attributable credits are calculated based on the conversion factor or consumption factor, which defines the amount of product that can be sold as certified.

Conversion Factor calculation for attribution determined by mass:

The conversion factor for attribution determined by mass is calculated based on the formula below:

$$CF\ (\%) = Ao/Ai * 100$$

CF: Conversion Factor
Ao: Total amount of output (including both certified and non-certified materials, based on mass)
Ai: Total amount of input (including both certified and non-certified materials, based on mass)

By applying the CF to the amount of certified input, system users can calculate the actual amount of credits of certified material that can be attributed to the process outputs. It is expressed as:

$$ACr = CF \times A_{CI}$$

A_{Cr} : Amount of Attributable Credits
A_{CI} : Amount of Certified Input

The amount of attributable credits can then be attributed freely to one (or more) products of the process within the mass balancing guardrails.

[35] Further guidance on similar-in-nature will be provided by ISCC

Consumption Factor calculation for attribution determined by mass:

The consumption factor for attribution determined by mass is calculated based on the formula below:

$$ConsF_i = (A_O \times rel.share_i) / A_i$$

ConsF: Consumption Factor
Ao: Amount of output with contribution of input i
Ai: Amount of the process input material
rel. share : share of output that is derived from certified input (i)

By applying the ConsF to the amount of certified input, system users can calculate the actual amount of credits of certified material that can be attributed to the process outputs. It is expressed as:

$$A_{Cr} = ConsF \times A_{CI}$$

A_{Cr} : Amount of Attributable Credits
A_{CI} : Amount of Certified Input

The amount of attributable credits can then be attributed freely to one (or more) products of the process within the mass balancing guardrails.

Attribution Determined by Energy

The second option of mass balancing that falls under the free attribution approach is attribution determined by energy. Under this approach, the amount of attributable credits is calculated based on the energy content of inputs and outputs.

The amount of the input material with specific sustainability characteristics coming into the system boundary is turned into credits that is for the input material. Then, the amount of attributable credits is calculated based on the conversion factor, which defines the amount of product that can be sold as certified. It is not possible to use consumption factor for attribution determined by energy.

Conversion Factor calculation for attribution determined by energy:

Under this mass balancing option, it is required to know the quantities of all inputs as well as the quantities of all outputs and their energy content[36], including both certified and non-certified materials. The conversion factor for attribution determined by energy is calculated based on the formula below:

$$CF\ (\%) = Ao/Ai * 100$$

CF: Conversion Factor

[36] Energy content is calculated by multiplying the amount of material with the corresponding lower heating value of the material

Ao: Total amount of output (including both certified and non-certified materials, based on energy)
Ai: Total amount of input (including both certified and non-certified materials, based on energy)

By applying the CF to the amount of certified input, system users can calculate the actual amount of sustainable material that can be attributed to the process outputs. It is expressed as:

$A_{Cr} = CF \times A_{CI}$

A_{Cr} = Amount of Attributable Credits (based on energy)
A_{CI} = Amount of Certified Input (based on energy)

The amount of attributable credits can then be attributed freely to one (or more) products of the process within the mass balancing guardrails. It is crucial to keep in mind that the conversion factor under this approach is calculated for energy, hence the amount of certified input must also be put in the formula in terms of energy. This would lead to amount of attributable credits to be in terms of energy. When attributing the credits, the system user must use the lower heating value of the product that the credits are attributed to, in order to determine the amount of certified output.

Consumption Factor calculation for attribution determined by energy:

The consumption factor for attribution determined by energy is calculated based on the formula below:

$ConsF_i = (A_O \times rel.share_i) / A_i$

ConsF: Consumption Factor
Ao: Amount of output with contribution of input i (based on energy)
Ai: Amount of the process input material (based on energy)
rel. $share_i$: share of output that is derived from certified input (i)

By applying the ConsF to the amount of certified input, system users can calculate the actual amount of credits of certified material that can be attributed to the process outputs. It is expressed as:

$A_{Cr}=ConsF \times A_{CI}$

A_{Cr} : Amount of Attributable Credits (based on energy)
A_{CI} : Amount of Certified Input (based on energy)

The amount of attributable credits can then be attributed freely to one (or more) products of the process within the mass balancing guardrails. When attributing the credits, the system user must use the lower heating value of the product that the credits are attributed to, in order to determine the amount of certified

output, similar to the approach described above under Conversion Factor calculation for attribution determined by energy.

Attribution based on output categorization – Fuel-Use Excluded Attribution Approach

Under the "Fuel-Use Excluded" approach, system users—similar to the "free attribution" approach—have the freedom to attribute sustainability characteristics from inputs to outputs within the defined boundaries and system limits (Chapter 4.6.2). However, in this approach, such attribution is preceded by a classification of the entire process outputs. A distinction is made between substances used to generate energy (fuels) and substances that can be traded as products or components of products without further (chemical) processing.

The part of fuel used outputs which are derived from the certified input material cannot be attributed to other output materials.[37, 38] Fuel used outputs are outputs that can be consumed internally (to provide energy for the process, “auto-consumption”) and as well as sold (to be used at downstream operators for energetic purposes).

To calculate the part of the fuel used outputs, which are derived from certified input material, an attribution of the certified input material to energetically used outputs according to real yields or input shares (on amass or energetic basis) is mandatory. This certified share of energetically used outputs cannot be re-attributed to material outputs[39].

Unlike other mass balance options, the "Fuel-Use Excluded" approach requires the calculation of output-specific conversion factors. Although this option can be applied to all feedstocks, it is particularly relevant for recycled materials.

Proportional Attribution Approach

Under this approach, the determination of the certified share of the outputs is based on the proportion of the certified inputs that are fed into that process. The available credit from the certified inputs is split according to the yield or distribution of the outputs.

In case there are multiple (co-)products from a process, all the respective outputs must be attributed with the determined certified share based on the proportion of the amount of certified inputs to the total amount of inputs. A “re-

[37] This option is also referred to “fuel-exempt” and is in line with the definition of recycling in the EU waste framework directive, which “does not include energy recovery and the reprocessing into materials that are to be used as fuel” (directive 2008/98/EC, Art 3 (17)). See System Document ISCC PLUS 202-5 – Waste and Residues

[38] Details of the implementation of an energy excluded approach under ISCC PLUS are under development, e.g. the consideration of products which can be used either for energetical purposes or as a material feedstock. Different implementation options will be tested in pilots at ISCC system users and additional guidance will be published separately to this system document.

[39] In case of simultaneous ISCC EU and PLUS certification: sustainable parts of sold fuels can be used under ISSC EU.

attribution" or "shift" of attributed certified share from one product of the process to another is not allowed.

The specific quantities of each input and output that are actually utilised in a process are used to determine these certified shares. The certified share of the input is determined based on the below formula.

$$\text{Certified share of the input (\%)} = \left(\frac{\text{Amount of the certified input (based on mass)}}{\text{Total amount of all inputs (based on mass)}}\right) * 100$$

With the below formula the individual certified share of each output can be determined.

$$\text{Certified share of a respective output (\%)} = \text{Certified share of the input (\%)} * \text{Amount of the respective output(based on mass)}$$

In the case of the proportional attribution, although losses must be calculated, the certified shares are not directly determined based on these losses (unlike attribution determined by mass/energy). For consideration of losses either the Conversion Factor or the Consumption Factor is calculated. The losses are calculated in order to determine the yield or the distribution of the outputs.

Requirements for Mass Balancing of Renewable Electricity in Electrolysis Processes:

For processes in which renewable electricity enables chemical reactions and is used to produce one or several products, mass balancing is limited to a "proportional approach" or "stoichiometric approach". This means that the certified share must be attributed to all process products in the same ratio in which these products are generated per unit of consumed electricity.

For example, in case of a chloralkaline processing unit in which renewable electricity, sodium chloride and water are used to produce chlorine as the main product, the process yields equivalent amounts of chlorine, sodium hydroxide and hydrogen (for every mole of chlorine produced, one mole of hydrogen and two moles of sodium hydroxide are also produced). In this case it is not allowed to e.g. transfer credits from chlorine to hydrogen or vice versa.

Attribution based on chemical reaction – Trace-the-Atom

The fourth mass balance attribution approach under ISCC PLUS is called Trace-the-Atom. It can also be used to determine the certified share of the output(s), based in the share of atoms derived from certified inputs in the output molecules. Here, instead of attributing sustainability characteristics based on mass or energy, attribution follows the share of atoms originating from the input in the output. To apply this mass balancing option, the mechanism of the reaction must be known and followed.

To calculate the certified share, the amount of atoms (total molecular weight of atoms) originating from the certified input is divided by the molecular weight of the output. Under the Trace-the-Atom approach, the certified share is determined, hence it is based on the chemical composition of the product.

Therefore, it is not possible to apply overcompensation under Trace-the-Atom approach.

Although the certified share of an output is determined via the chemical reaction, this approach is still credit based as the system user chooses dedicated product amounts (e.g. batches), to which the sustainability characteristics of certified input is attributed to. Also, the operational data of the processing unit must be used to take process losses into account and determine the amount of certified output. For this a consumption factor should be used.

Consumption Factor under Trace-the-Atom

In the Trace-the-Atom approach only consumption factor can be applied, as the atoms of each input must be taken into account when calculating the certified share of the output. There is no possibility for the Conversion factor to be used in this approach, as the Conversion factor is considering the total amounts of output(s) in relation to the total amounts of input(s). Therefore, the following calculations can be used:

$$ConsF_i = (A_O \times rel.share_i) / A_i$$

ConsF: Consumption Factor
Ao: Amount of output with contribution of input i
Ai: Amount of the process input material
rel. $share_i$: share of output that is derived from certified input (i)

Amount of attributable credits to a certain product is limited to the relative share of output derived from certified input. It is not possible to attribute to any batch of products higher than this percentage.

In the absence of a chemical reaction - where the origin of atoms from input to output can be directly traced - the certified share can still be quantified and passed down the supply chain. This information must be documented in the Sustainability Declaration, for example, by specifying the exact molecular weight of the certified atoms as a proportion of the total molecular weight of the material.

4.6.5. Proof of Biogenic Content via ^{14}C Isotope Measurement

Under ISCC PLUS, the ^{14}C isotope analysis is used to determine the actual bio-based carbon content in a product by measuring the ratio of carbon-14 (^{14}C) to carbon-12 (^{12}C) isotopes. This method is based on the principle that bio-based materials, derived from recent biological sources, contain trace amounts of ^{14}C, whereas fossil-based materials do not, as their ^{14}C has completely decayed over time.

The application of this method must be tailored to the specific product type, with sampling approaches supported either by scientific justification or relevant standards. For example, the ^{14}C testing can be used to analyse a product

made from a mix of bio-based and fossil-based polymers in order to determine its actual bio-based carbon content.

This analytical approach is independent of the chain of custody models and can serve as a complementary tool to reinforce claims made under ISCC PLUS. Because the bio-content is scientifically verified, claims about the bio-based share can be made directly on the product with a high level of confidence.

Since the origin of non-carbon atoms (such as oxygen, hydrogen, nitrogen, and other heteroatoms) cannot be determined through ^{14}C analysis, the following approach is used to assess bio-based content after such analysis: If a product is synthesized using reactants from both biomass and non-biomass sources, any heteroatoms (e.g., O, H, N) that are chemically bonded to a carbon structure known to be derived from biomass are counted as part of the bio-based content[40]. For further information on Hetero Atom cases, see Chapter 4.6.7.

4.6.6. Consideration of Additives, Masterbatches and Not certified Organic Content for Mass Balancing

Limits for conversion factors

The sum of all additives, masterbatches and not certified organic compounds must be less than 3% of the total mass or energetic value per product, in order to be neglected from the mass balance calculation[41]. Components that exceed 3% of the total quantity of the product must be entirely taken into account in the mass balance calculation. Excluding the 3% from total amount of additives is not possible.

Taking into account the tolerance level of neglection, it is not allowed to use a conversion factor >1.

4.6.7. Consideration of Hetero Atoms

If a product consists of carbon atoms and hetero atoms such as oxygen (O), hydrogen (H) or nitrogen (N), the hetero atoms are considered to be part of the certified share of the product, as long as they are derived from the ISCC compliant input material (molecule). Example is the oxygen atom in bio ethanol, where the oxygen atom is also originating from the biomass.

If oxygen or nitrogen from ambient air reacts with an ISCC compliant input material, the oxygen and nitrogen atoms derived from ambient air are also considered to be part of the certified share of the product[42] (e.g. nitrogen in ammonia production reacting with certified hydrogen, see certification example 5 in Annex I – 4. Certification Examples) and it is allowed to make a claim on the corresponding share[43]. This is allowed when using directly

[40] For further information please see DIN EN 16785-1
[41] Under this approach, system users can end up claiming more certified material than sourced
[42] Under this approach, system users can end up claiming more certified material than sourced
[43] This explicitly does not hold for the reaction of oxygen or nitrogen with non-compliant (fossil) input. In case of Processing ISCC compliant input with non-compliant input (same material), only oxygen or

ambient air as a reactant or purified oxygen or purified nitrogen derived from ambient air.

It is not allowed to attribute the certified share of oxygen and nitrogen in the downstream production processes of the supply chain to other atoms. If oxygen or nitrogen atoms from ISCC compliant input materials are no longer present in the certified output material (molecule)[44], the certified share needs to be reduced by the respective mass of the removed oxygen and nitrogen atoms. The certified free attribution is hence restricted in those cases to the mass of the other content from the ISCC compliant input material[45].

In the Hetero atom approach, the presence of hetero atoms is directly traceable from the input(s) to the output(s). Consequently, losses may only be calculated using a defined consumption factor.

4.6.8. Requirements for CO_2 Certifications

CO_2 as a raw material

CO_2 from the following sources can be used under ISCC PLUS:

- Biogenic CO_2 which originates from biomass[46]
- Atmospheric CO_2 from direct air capture
- Post-industrial (fossil) CO_2 captured from industrial processes, which use fossil sources to deliberately produce electricity, heat, or materials (e.g., cement, iron and steel, petrochemical industry)

Biogenic CO_2 can be certified as a product and a raw material without additional requirements.[47]

Atmospheric and fossil CO_2 can be certified only as a raw material if specific requirements are fulfilled. These requirements depend on the production setup, which uses CO_2 as an input. As CO_2 does not contain usable energy, the energy needed to drive these production processes comes from other reactants. Hence, potential certifiable setups under ISCC PLUS must fulfill the following preconditions:

- Post-industrial or atmospheric CO_2 and hydrogen as reactant

  If fossil or atmospheric CO_2 reacts with hydrogen, the hydrogen needs to be ISCC compliant (bio, (bio-)circular or renewable-energy-derived hydrogen) in order to claim products derived from the reaction of fossil

nitrogen reacting with the ISCC compliant share of the input material can be considered to be part of the certified share of the product.

[44] E.g., due to oxygen or nitrogen atoms leaving the production process as O_2 or N_2 or if the oxygen or nitrogen atoms are present in output materials with no attributed sustainability characteristics.

[45] Hetero atoms from impurities in input materials with weight percentages <1% do not need to be taken into account for this requirement.

[46] 'Biomass' means the biodegradable fraction of products, waste and residues of biological origin from agriculture, including vegetal and animal substances, from forestry and related industries, including fisheries and aquaculture, as well as the biodegradable fraction of waste, including industrial and municipal waste of biological origin (https://knowledge4policy.ec.europa.eu/glossary-item/biomass_en)

[47] For biogenic CO_2 as a product, the conventional mass balance regulations of ISCC PLUS apply. However, in a process producing biogenic CO_2 next to other co-products, the attribution of the biogenic input material to the products needs to follow the chemical reaction (Trace-the-Atom).

or atmospheric CO_2 with H_2 as ISCC compliant (see certification example 1 in Annex).

- Post-industrial or atmospheric CO_2 and other materials as reactants

  CO_2 is used in the chemical industry for the production of different products (e.g., urea). The outputs of such processes can get ISCC PLUS certified if the following two requirements are both met:

  - At least one other relevant process input (reactant of fossil or atmospheric CO_2) in the production process besides the fossil or atmospheric CO_2 needs to be ISCC compliant (for relevance of process inputs see certification example 2 in Annex).
  - Only the outputs of the process can get ISCC PLUS certified, which contain the carbon derived from the fossil or atmospheric CO_2 and / or other ISCC compliant inputs (no attribution from CO_2 to other carbon atoms allowed).

Additionally, during the audit, it must be verified that the CO_2 was not deliberately produced for use in the above-mentioned production processes. If these requirements are met, CO_2 can be used as a raw material under ISCC PLUS. The atoms derived from the CO_2 in the products can be taken into account to calculate the certified share[48].

For biogenic CO_2, additional claims on the origin of CO_2 can be made.

Under CO_2 certification, both rolling average and credit-based methods are applicable. The certified share in the outputs will be based on the amount of certified input introduced and processed, independently of the choice of rolling or credit-based method.

If a certified material reacts with post-industrial or atmospheric CO_2, the losses of the process must be calculated by using the consumption factor of the reaction.

4.6.9. Overview of Requirements for Mass Balance Audits

The verification of mass balances is an integral part of the audit of an economic operator. It must be verified by the auditor that the amount of certified product that has been claimed do not exceed the amount that is actually available and also that no multiple-accounting of certified material has taken place.

Prior to the audit, the economic operator must submit all site-specific mass balance bookkeeping to the CB conducting the audit. This applies to all mass balance bookkeeping relevant for the certification of the economic operator, i.e. every site (external storage facility or dependent collecting point) covered by the certificate.

[48] Under this approach, system users can end up claiming more certified material than sourced

In the case of an initial (first) audit, the economic operator must set up a mass balance system, which is checked by the auditor during the audit. For all further audits, the auditor must verify at least a sample of mass balance periods (including inputs, outputs, conversion factors and credits carried forward) and must check this against the bookkeeping and documentation.

The following specific aspects and documents must be taken into account for mass balances audits, including:

- List of all sites that are covered under the certification (e.g. external storage sites, dependent collecting points, etc.). Separate mass balances must be kept for each site.
- List of all inputs, outputs and inventory (and credits) per site, including descriptions of the materials and information on the suppliers and recipients respectively. This list must include both certified and non-certified materials, and if relevant, must also include fossil materials handled by the sites.
- Conversion or consumption factors applied. (In the case of waste/residues, it is especially important to ensure that the conversion process was not modified to produce more waste or residues).
- Timeframe of mass balance or averaging periods. The start and end date of each mass balance or averaging period must be documented transparently. The economic operator must inform the certification body about any changes to the mass balance or averaging period.
- Verification of the mass balance calculation to ensure that the bookkeeping is balanced or that certified amounts were calculated correctly.
- Certified inputs and outputs must be accompanied by a set of sustainability characteristics (reflected on incoming and outgoing Sustainability Declarations, see Chapter 3.3.3). During the audit it must be checked that sustainability characteristics from incoming Sustainability Declarations were taken into account correctly to set up the mass balance bookkeeping, and that the sustainability characteristics were attributed correctly to the outgoing material/products.
- Mass balance bookkeeping and other relevant documentation of other certification schemes used by the economic operator must be taken into account to ensure that no multiple accounting has taken place.

ANNEX I – Differences between ISCC EU and ISCC PLUS regarding Traceability and Chain of Custody

Issue	ISCC EU	ISCC PLUS
Transfer of positive credits to the next mass balance period	Only, if at least the equivalent amount of physical material (sustainable and unsustainable) is in stock	Positive credit transfer possible with no time limit even if no physical material is in stock
Transfer of credit between different sites	Transfer of credits between different sites not allowed	Transfer of credits to other sites of the same company, corporate group or joint venture possible for processing units and storage locations under certain conditions
Mutual acceptance of ISCC EU and ISCC PLUS	Deliveries solely from ISCC PLUS certified companies not accepted	Under ISCC PLUS entities handling “ISCC compliant” material can be accepted under ISCC PLUS
Applicable claims	“ISCC Compliant” and “EU RED compliant”	“ISCC Compliant”. If applicable, claims for voluntary Add-ons used (ISCC claims and logos document)
GHG information on Sustainability Declaration	Mandatory (special requirements for final biofuels see table below)	Only if the voluntary Add-on “GHG emissions” is applied

ANNEX II – General Certification Examples

The below given examples show possible certifications under ISCC PLUS on an exemplary basis. The list is not complete. Adaptations of the individual examples shown here may be necessary due to different requirements of different setups. The list aims to support the establishment of a uniform terminology and handling and to provide orientation for certification.

Example number	Inputs	Outputs	Description
1	Renewable-energy-derived hydrogen, CO_2	Renewable-energy-derived methanol	To produce ISCC PLUS certified methanol from fossil or atmospheric CO_2, ISCC compliant hydrogen need to be used. The same is true for ISCC compliant methane from fossil or atmospheric CO_2 (SNG). The raw material category of the hydrogen (bio, (bio-) circular, renewable-energy-derived) can solely be used as the raw material category for methanol.
2	Bio ammonia, CO_2	Bio urea	ISCC PLUS certified urea can be produced from fossil or atmospheric CO_2 and ISCC compliant ammonia (bio, (bio-)circular, renewable-energy-derived). The other relevant process input besides CO_2, which needs to be ISCC compliant, is ammonia in this example. Hence, in this example, the carbon and oxygen atom of urea derived from CO_2 are part of the certified share. The raw material category of the ammonia can be solely used as the raw material category for urea.
3	Renewable electricity	Renewable-energy-derived chlorine, Renewable-energy-derived hydrogen, Renewable-energy-derived sodium hydroxide	In the Chloralkali electrolysis electrical current is used to produce chlorine at the anode and hydrogen at the cathode. Hence electricity is an integral part of the reaction of the production process and can be considered as the main feedstock. The material feedstocks water and sodium chloride itself are not certified. All products of this production process (chlorine, hydrogen, sodium hydroxide) can be claimed “renewable-energy-derived”.
4	Renewable-energy-derived sodium	Renewable-energy-derived	A combination of raw material categories for the super absorbing polymer (SAP) sodium polyacrylate is possible, since this reflects

	hydroxide, bio acrylic acid	bio sodium polyacrylate	the chemical reaction and both inputs with different raw material categories are present in the certified output. The masses of the parts of SAP derived from each raw material category need to be stated separately in the Sustainability Declaration.
5	Renewable-energy-derived hydrogen, N_2 from air	Renewable-energy-derived ammonia	The nitrogen atoms, which were derived from ambient air and which reacted with ISCC compliant hydrogen are part of the certified share of ammonia. In case of co-processing with hydrogen from fossil sources only the nitrogen reacting with the ISCC compliant share of hydrogen is considered for the certified share of ammonia.