ISCC
International Sustainability & Carbon Certification

ISCC PLUS

Version 3.4.2

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Content

Summary of Changes

The following is a summary of all content changes to the previous version of the document. Other changes, e.g. corrections of spelling mistakes, are not listed.

Summary of changes made in version 3.4.2	Chapter
• The ISCC EU 203 – Traceability and Chain of Custody System Document (v4.0) is incorporated into this version of ISCC PLUS System Document (v3.4.2)	
• Sub-chapter: Sustainability Requirements moved to sub-chapter 5.3 • Added: Sustainability Principles for forest sourcing areas	5.3
• Added footnote: "'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" • Added footnote: "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)"	5.5
• Added footnote: "Same production process means same manufacturing operation for the same type of product."	5.6
• Renaming: Potential Ocean Bound Plastic to Ocean Bound Plastic	5.7
• Updated: Figure 'Process to determine if a material is a waste or residue'	6
• Updated: "If 'ISCC Compliant material' is sold to clients that are not ISCC certified and/or 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." • Updated: "The raw material complies with the sustainability criteria according to the ISCC 'Sustainability Requirements' as laid down in ISCC System Documents 202-01/-02 for agricultural biomass (or 202-03/-04 for forest biomass)"	8.3.3
• Updated: Group Certification Approach for Final Product Refinement Activities	8.5.7
• Added: "Excluding the 3% from total amount of additives is not possible"	9.4.5
• Updated: Acceptance of other certification schemes, "Provisionally, timber from forest certified under the Forest Stewardship Council (FSC) forest management (FM) standard. (An additional verification must be conducted to prove compliance with the requirements for the ISCC EU 202-3 Forest Biomass Principle 1.)"	Annex I

1 Introduction

Solution provider for sustainable supply chains

ISCC – International Sustainability and Carbon Certification (ISCC) is a certification system that offers solutions for the implementation and certification of sustainable, deforestation-free and traceable supply chains of agricultural, forestry, waste and residue raw materials, non-bio renewables and recycled carbon materials and fuels. Independent third-party certification ensures compliance with high ecological and social sustainability requirements, greenhouse gas (GHG) emissions savings (on a voluntary basis under ISCC PLUS) and traceability throughout the supply chain. ISCC can be applied globally in all markets including the food, feed, chemical and energy markets and for industrial applications of the respective raw materials.

Entire supply chains and different markets

No compensation accepted for system breaches

ISCC applies strict rules for the conservation of valuable landscapes as well as the environmentally friendly and socially responsible production of agricultural and forestry raw materials. ISCC does not accept any form of compensation or remuneration for breaches of system requirements.

Multi-stakeholder organisation

Since 2006, ISCC has continued to develop through an open multi-stakeholder process involving representatives from agriculture, processing and refining industries, trade and NGOs with ecological and social backgrounds. Today, ISCC is one of the world's leading certification systems. The interests of the different stakeholders are represented in the ISCC Association (ISCC e.V.). At regular regional and technical stakeholder committees in Asia, Europe, North- and South America, experiences and improvements of the ISCC System and further developments are discussed and – when possible – lead to continuous improvements of the ISCC system.

Different ISCC systems

ISCC operates different certification systems for different markets. These systems are ISCC EU, ISCC PLUS and ISCC CORSIA. ISCC EU is a certification system to demonstrate compliance with the legal sustainability requirements specified in the Renewable Energy Directive (RED) II. ISCC PLUS is a certification system for all markets and sectors not regulated by the RED II, such as the food, feed or energy markets and for diverse industrial applications. Under ISCC PLUS, all types of agricultural and forestry raw materials, waste and residues, non-bio renewables and recycled carbon materials and fuels are covered. ISCC CORSIA is the certification system to demonstrate compliance with the requirements for sustainable aviation fuels in the framework of the Carbon Offsetting and Reduction Scheme for International Civil Aviation (CORSIA).

Market specific solutions

ISCC is also a provider of market specific solutions. The ISCC Japan FIT standard for palm kernel shells and palm trunks sets out the requirements in compliance with the Japan FIT system approved by the Ministry for Economy, Trade and Industry Japan. In addition, ISCC Solid Biomass NL certification system can be used by system users to comply with the Dutch legal sustainability requirements for solid biomass for energy applications.

ISCC as a "One-Stop-Shop" solution

ISCC offers a "One-Stop-Shop" solution, as the ISCC EU and ISCC PLUS schemes are widely harmonized. With only one audit, an operation can obtain both an ISCC PLUS and ISCC EU certification. The main criteria of the ISCC sustainability scheme are based on the RED II sustainability requirements, with additional sustainability requirements on environmental and social issues, which go beyond legal requirements.

Best practices

During the development of its systems, ISCC considers and complements best practice initiatives like the International Social and Environmental Accreditation and Labelling Alliance (ISEAL Alliance) and international standards like the International Standard on Assurance Engagements (ISAE) 3000[1] and the International Organisation for Standardization (ISO). This facilitates and enables a consistent and reliable application of ISCC, especially with respect to quality control, risk management, planning and conducting of audits, as well as sampling processes, surveillance and reporting mechanisms. Furthermore, ISCC operates the ISCC Integrity Program, a tool used to continuously monitor the performance of the ISCC System Users and Certification Bodies (CBs) cooperating with ISCC to ensure and maintain the high-quality standard and credibility of ISCC.

2 Scope and Normative References

ISCC EU System Documents apply also for ISCC PLUS

As the ISCC PLUS and ISCC EU certification schemes are widely harmonized, the ISCC EU System Documents, in general, apply for ISCC PLUS. This means that the ISCC EU System Documents also serve as system documents for the ISCC PLUS scheme. There are some different requirements between ISCC EU and ISCC PLUS, especially with regard to GHG emission calculation, which ISCC would like to emphasize in this document. This document serves as an additional compulsory source of information to the ISCC EU System Documents for a certification under ISCC PLUS. This approach is intended to facilitate companies, certification bodies and other interested parties as they only have to refer to one set of system documents, and duplication of requirements is avoided.

The ISCC EU System Documents lay down the general ISCC system principles, which (apart from the different requirements specified in this document) are also valid under ISCC PLUS. These documents can be found on the ISCC website in their currently valid version.

No application of RED II GHG saving requirements under PLUS

References made within the ISCC EU System Documents regarding the RED II requirements for sustainable fuels (for example, biofuels, bioliquids or biomass fuels) also apply under ISCC PLUS for all other products such as food, feed or biochemicals (e.g., "… to fulfil the requirements of the RED II is meant comparably for … to fulfil the requirements of the ISCC sustainability standard"). Any obligatory regulatory requirements specific to the EU biofuels

1 *International Standard on Assurance Engagements 3000: Assurance Engagements other than Audits or Reviews of Historical Financial Information.*

sector, such as the EU Reporting Obligation or the minimum GHG emission saving requirement, do not apply under ISCC PLUS.

3 Governance

General principles

The ISCC EU System Document 102 “Governance” lays down the general principles that govern the global ISCC system. It specifies the goals and internal structure of ISCC, as well as the relationship between ISCC and its stakeholders.

The System Document 102 is applicable to both ISCC EU and ISCC PLUS. However, it's important to note that, currently, ISCC PLUS is not a certification scheme officially recognized by the European Commission or other authorities. Consequently, the obligation to report its activities and status to the European Commission does not exist at this point in time.

4 Requirements for Certification Bodies and Auditors

Requirements for ISCC recognition

The ISCC EU System Document 103, “Requirements for Certification Bodies and Auditors”, specifies the requirements for CBs to be allowed to conduct certifications under the ISCC standard and, thus, duties of CBs cooperating with ISCC and performing certification services according to ISCC. Furthermore, it lays down the requirements and necessary qualifications for auditors conducting ISCC audits.

The System Document 103 is applicable to both ISCC EU and ISCC PLUS.

5 System Basics

Fundamentals of the ISCC system

The ISCC EU System Document 201, "System Basics", provides an overview of the fundamentals of the ISCC system. It outlines the ISCC system´s structure and the certification criteria regarding sustainability, traceability and the chain of custody, as well as GHG emissions (voluntary under ISCC PLUS). The document also addresses the certification requirements for the different participants in the supply chain. Furthermore, it describes the processes of registration, audit, and certification, along with the requirements for the issuance and validity of ISCC certificates.

The System Document 201 is applicable to both ISCC EU and ISCC PLUS, with some differing requirements outlined in the subsequent sub-chapters specific to ISCC PLUS.

Recognizing the evolving market demands not covered within the existing ISCC PLUS system and add-ons[2], ISCC is open to the development of additional extensions. These potential extensions, encompassing voluntary add-ons and scopes, would address a broader range of raw materials, processes, and supply chains to meet specific market requirements.

5.1 Acceptance of other Sustainability Schemes under ISCC PLUS

Acceptance of certification schemes

Other voluntary schemes, other than ISCC, may be accepted under specific circumstances. ISCC will only consider mutual recognition with other multi-stakeholder voluntary schemes that also employ governance, sustainability and traceability criteria as well as integrity measures. Also, a benchmark demonstrating equivalence of the schemes needs to be conducted. An independent, qualified auditor must compare the interpretation of the two standards within the framework of a pilot audit to confirm the findings of the equivalence benchmark.

ISCC Compliant

"ISCC Compliant" means that all economic operators along the supply chain must demonstrate that the relevant ISCC standard requirements have been fulfilled. Within ISCC PLUS, it must be guaranteed that the whole upstream supply chain up to the farm/plantation or point of origin is entirely ISCC certified or from a forest that is FSC Forest Management (FM) certified (see Chapter 5.1.1). Any material used in an "ISCC Compliant" supply chain must consist entirely of ISCC material.[3] Sustainable material coming from ISCC EU or certified raw material providers (collecting points or first gathering points or individually certified points of origin/ farms/plantations/ forest sourcing area), which fulfil the above "ISCC Compliant" requirement, shall contain the statement "ISCC Compliant" on its Sustainability Declaration, in order to be accepted under ISCC PLUS.

2 *Add-ons are additional modules of ISCC, which can be used on top of the ISCC core-requirements*
3 *Or of FSC Forest Management (FM) certified timber. At least on a quantity bookkeeping basis (see Chapter 9 on Traceability and Chain of Custody)*

The statement “ISCC Compliant” can only be made if the ISCC certified operator has received an equivalent amount of incoming material with the statement “ISCC Compliant” on the Sustainability Declaration. First Gathering Points can only make this statement for deliveries from farms or plantations, or forests that comply with the ISCC requirements. Collecting Points can only make this statement for materials collected from points of origin that comply with the ISCC requirements.

EU RED Compliant

Incoming material with the statement “EU RED Compliant[4]” cannot be accepted under ISCC PLUS. For outgoing materials, the claim “EU RED Compliant” cannot be applied.

Currently, materials certified under any voluntary scheme other than ISCC cannot be accepted in ISCC PLUS supply chains, with the exception of a forest biomass that is FSC FM certified (see Chapter 5.1.1).

When a manufacturer seeks certification of a substance made from a mix of “ISCC PLUS Compliant” and non-compliant raw materials, assurance is needed that the amount of “ISCC PLUS compliant” substance does not exceed the quantity and value of “ISCC PLUS compliant” raw material. Further information on possible claims can be found in the ISCC Logos and Claims Document.

5.1.1 Forest Biomass under ISCC PLUS

Provisionally, ISCC PLUS accepts timber from forests certified under the Forest Stewardship Council (FSC) forest management (FM) standard, to prove compliance with the ISCC PLUS requirements (Principles 2-6) for forest biomass from the forest[5]. The acceptance is based on a benchmark conducted with the FSC FM standard. An additional verification must be conducted to prove compliance with the requirements for the ISCC EU 202-3 Forest Biomass Principle 1. Compliance with this principle can be proven on the level of the management system at the forest sourcing area (individual certification) or on a national or subnational level. Scientific literature, data from the forest management unit or EU projects (e.g. REDIIBIO) and other relevant data can be used to prove compliance with the requirement.

Purchasing activities of non-ISCC certified forest biomass from the forest sourcing area up to the First Gathering Point (FGP) can only be part of the ISCC PLUS supply chain, when the FGP is in the position to include relevant information of the forest sourcing area. This includes the following:

- the origin of the wood (sourcing area, etc.)
- the type of wood (wood species) on the relevant batches
- the harvested forest biomass volume

4 *Sustainable material has to be considered “EU RED Compliant” if the ISCC certified operator receives deliveries from suppliers that are certified to any other recognised voluntary certification scheme in the framework of the Renewable Energy Directive II.*
5 *Under the condition that the forest is not violating ISCC Principle 2, Criteria 2.1.3 Conversion of natural and semi-natural forests to plantation forests.*

> the FSC Forest Management certificate

In this case, the FGP is responsible to keep and track the required information and must inform the CB if there are any changes.

5.2 Material Eligible for ISCC PLUS Certification

Eligible material

Under ISCC PLUS, the following materials contributing to the development of the Circular Economy and Bioeconomy can be certified:

> All types of agricultural and forestry raw materials

> Biogenic wastes/residues

> Non-fossil materials

> Circular materials

> Other non-conventional feedstock

Furthermore, all materials covered under ISCC EU or ISCC CORSIA can also be certified under ISCC PLUS. The certification of materials and products not stated on either of these lists is potentially possible after consultation with and confirmation by ISCC. The respective material lists indicate the relevant information needed when submitting material requests to ISCC.

The eligible material lists are not exhaustive. The purpose is to standardize/harmonize the material descriptions used by system users on ISCC certificates. System users shall adhere to the material list of the respective ISCC scheme they employ.

5.3 Sustainability Requirements

Sustainability principles for farms/plantations

The ISCC EU System Documents ISCC EU 202-1 – Agricultural Biomass: ISCC Principle 1, ISCC EU 202-2 – Agricultural Biomass: ISCC Principles 2-6, provide information on the sustainability requirements for farms/plantations, comprising of six sustainability principles:

1. Protection of land with high biodiversity value or high carbon stock
2. Environmentally responsible production to protect soil, water and air
3. Safe working conditions
4. Compliance with human, labour and land rights
5. Compliance with laws and international treaties
6. Good management practices and continuous improvement

Sustainability principles for forest sourcing areas

For the forest sourcing areas, the ISCC System Documents ISCC EU 202-3 Forest Biomass: ISCC Principle 1, and ISCC EU 202-4 – Forest Biomass: ISCC Principles 2-6, provide information on the sustainability requirements with the sustainability principles:

1. Harvesting criteria and land-use, land-use change (LUC) and forestry (LULUCF) criteria
2. Environmentally responsible production to protect soil, water and air
3. Safe working conditions
4. Compliance with human, labour and land rights
5. Compliance with laws and international treaties
6. Good management practices and continuous improvement

These system documents, under compliance of the RED II, apply equally for ISCC EU and ISCC PLUS.

Under ISCC, it is obligatory for the certified sites to comply with the laws, ordinances, directives and ratified treaties of the country in which they are located/operate, in terms of waste disposal and treatment, air, water and soil emissions/pollutions. The processing/handling of ISCC raw material should not lead to any type of additional emissions, pollutions and/or health hazards.

5.4 Raw Material Category

Categories for the type of raw material

Under ISCC PLUS, the following three raw material categories (arising at the beginning of the supply chain) can be certified:

- **Bio** feedstocks are derived from virgin biomass, whereas biomass refers to the biodegradable fraction of products from agriculture, forestry and related industries, including fisheries and aquaculture, e.g., corn, sugarcane, rapeseed, etc.
- **Bio-circular and Circular** feedstocks are materials at the beginning of the supply chain considered as waste/ processing residue that are not landfilled or energetically used, but instead re-used, re-distributed, re-furbished, re-manufactured or recycled in a loop without dropping out of the economy.
  - "Bio-circular" refers to waste and residues of biological origin from agriculture, forestry and related industries, including fisheries and aquaculture, as well as the biodegradable fraction of industrial and municipal waste (e.g., UCO, tall oil, food waste, etc.)
  - "Circular" (incl. technical-circular) means feedstock derived from the mechanical and/or chemical processing of recyclable materials of non-biological origin (fossil-based). Circular feedstock can be further differentiated into (a) organic (fossil-based) materials like mixed plastic waste, waste textiles, end-of-life tires, etc., and (b) inorganic materials like metals, inorganic acids, minerals, metal salts, etc.
- **Renewable-energy-derived** feedstock category comprises products which use renewable energy (e.g., renewable electricity or other

renewable energy sources except for biomass) as an integral part of the reaction (e.g., redox reactions, electrolysis, see certification example 3 in Annex I – 4. Certification Examples and Chapter 9.4.7 on mass balancing of electrolysis processes). The use of renewable energy for utilities (steam, heat) or building energy consumption in a material production process is not sufficient to claim the material as "renewable-energy-derived".

Renewable electricity is defined as electricity generated from renewable non-fossil sources, namely wind, solar (solar thermal and solar photovoltaic) and geothermal energy, ambient energy, tide, wave and other ocean energy, hydropower, biomass, landfill gas, sewage treatment plant gas and biogas[6]. If the renewable electricity is produced from feedstocks that are covered by the raw material categories bio, bio-circular or circular, the products produced from this electricity are covered by that respective raw material category.

The renewability of electricity can be proven via Energy Attribute Certificates[7] (EACs) (e.g., Guarantees of Origin (GoO), in the EU or Renewable Energy Certificates (RECs), in the US), renewable power purchase agreements (PPAs) combined with EACs, comparable documentation, or via a direct connection/ link of the processing unit with the respective unit producing renewable electricity. The proof of renewability must ensure that double counting of the renewable electricity is avoided.

At a minimum, the following information must be part of the relevant documentation (i.e., for EACs, etc.[8]):

- the energy source from which the energy carrier was produced and the start and end dates of production
- the type of energy or energy carrier (e.g., electricity, gas – including hydrogen, heat, or cooling)
- the identity, location, type and capacity of the installation where the energy or energy carrier was produced
- whether the installation has benefited from investment support and whether the unit of energy has benefited in any other way from a national support scheme and the type of support scheme
- the date on which the installation became operational (i.e., starting point of first electricity supply into grid)
- the date and country of issue and a unique identification number of the REC/GoO

6 *Renewable Energy Directive (EU) 2018/2001 (RED II) Article 2(1)*
7 *In this context, "certificate" does not mean an ISCC certificate but refers to guarantees of origin and equivalent documents which state the source of energy used to produce the electricity and are connected to certification systems that track electricity.*
8 *REDII, Article 19(7)*

Under ISCC PLUS, the cancelation of renewable energy certificates for the purpose of claiming a product as renewable-energy-derived may only take place as long as the renewable energy certificate is valid at the time of cancellation and cancelled no later than 18 months after the production of the respective unit of energy. A respective proof of the unit using the renewable energy must be provided during the audit.

As a prerequisite for including renewable electricity in the ISCC PLUS bookkeeping/ mass balance, the respective renewable energy certificates need to have been cancelled and can no longer be used or sold. During the certification audit, it must be verified that the certified company does not claim the electricity used to produce renewable-energy-derived materials in another certification scheme.

Differentiation of renewable-energy-derived materials from other raw material categories

The raw material category “renewable-energy-derived” solely focus on the renewable energy (e.g., renewable electricity) being an integral part of the reaction/production process. Unlike other feedstocks, the raw materials contributing to the atoms or molecules of the products do not need to be ISCC compliant for renewable-energy-derived products (see certification example 3 in Annex I – 4. Certification Examples). This is expressed through the added term “derived” in comparison to the raw material categories bio, bio-circular or circular. For product claims, it is possible to use “renewable” instead of “renewable-energy-derived” if the production process linked to the use of renewable energy (e.g., renewable electricity) as an integral part of the reaction is explained via further information (i.e., company website, CSR report, on-product QR code, etc.)

Multi-input processes

For multi-input processes with inputs from different raw material categories, the combination of raw material categories for outgoing products is possible if this reflects the chemical reaction leading to the presence of several inputs with different raw material categories in the certified output (see certification example 4 in Annex I – 4. Certification Examples). Even when combining different raw material categories, the amounts of certified material for each raw material category need to be kept separately in the chain of custody and traceability documentation (i.e. mass balance, Sustainability Declarations, etc.). For reactions of ISCC compliant input material with CO_2, only the raw material category of the ISCC compliant input material can be used to describe the respective output (see certification examples 1 and 2 in Annex I – 4. Certification Examples).

5.5 Requirements for CO2 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[9]
- 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.[10]

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 or atmospheric CO_2 with H_2 as ISCC compliant (see certification example 1 in Annex I – 4. Certification Examples).

- **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 I – 4. Certification Examples).
  - 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 CO2 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

9 *'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)

10 *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).*

PLUS. The atoms derived from the CO_2 in the products can be taken into account to calculate the sustainable share.

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

5.6 Post-Consumer and Pre-Consumer Materials

The ISCC approach covers post-consumer and pre-consumer waste. This can also include inorganic waste materials entering the circular economy.

Post-consumer material is defined as material generated by households or by commercial, industrial and institutional facilities in their role as end-users of the product which can no longer be used for its intended purpose. This includes returns of material from the distribution chain (see also ISO 14021:2021).

Pre-consumer material that falls under the definition of "waste or processing residues" according to the "Process to determine if a material is a waste or residue" (see Chapter 6, Figure 1) can also be named as "circular material/ products" under ISCC. Pre-consumer material covers, e.g., material derived from waste streams during the system user's manufacturing processes (see also ISO 14021:2021). Material that is reused in the same production process from which it was generated and can be assigned to the categories of rework, regrind or scrap generated cannot be claimed as "circular": Treatment of pre-consumer material must undergo an additional processing step in order to be claimed as "circular", e.g., by an official waste management company or an external company. Examples of processes involved in an additional processing step include:

- Melting
- Extrusion
- Regranulating
- Compounding

For the internal processing of waste streams originating from non-sustainable feedstocks, the requirements are:

- The processed material is not used in the same production process which it originates from[11]
- Existence of an official waste code for the material
- Additional processing step(s)
- The proportion of the reused circular pre-consumer material originating from the same site should be significantly lower (relevant

11 *Same production process means same manufacturing operation for the same type of product. (EN 45557:2019)*

data must be provided, which can be based on the product or on the production process) than the proportion of "virgin" raw material used. If a processing unit generates a higher share of waste and thus circular over time, evidence must be provided justifying that waste was not intentionally generated.

If scrap originates from ISCC certified sustainable materials, then it is handled as follows:

- If it can be processed internally, the sustainable credits remain in the mass balance and can be further allocated to the outputs (taking into consideration the rules for certified attribution, e.g., process feasibility).
- If it is sold to an external facility for re- or further processing, they are to be classified as co-product with the option to attribute sustainable shares to any output of the production process (keeping in mind the general requirements for certified attribution such as technical feasibility).
- If it is discarded without any re- or further processing, it must be considered as a production loss for the conversion factor determination.

Concerning supply chains based on reuse and recycling of material, all ISCC requirements regarding traceability, chain of custody and all other relevant ISCC requirements are fully applicable.

For marketing purposes, companies must claim their input materials and products as specific and transparent as possible to internal and external stakeholders, e.g. referring to post-consumer and/or post-industrial feedstock. The currently valid ISCC Logo and Claims requirements must be followed.

5.7 Ocean-bound Plastic

OBP *requirements*

Ocean-bound plastic (OBP) is discarded plastic material (in all forms) located within 50 km of ocean coastlines, with a high likelihood of eventually reaching the ocean.[12]

In addition to the ISCC PLUS requirements for plastic materials, the following requirements must be met to certify OBP:

- A detailed description of how the status of the material as waste is determined.
- At least one team member of the collection team has to be interviewed by the auditor to approve the process of identifying OBP.

12 *Definition is aligned with the definitions of OBP cert, Oceancycle, Zeroplastic Ocean/Prevented Ocean Plastic.*

- Collection sites must be transparently and separately listed, including the address, geo-tag, date, team members, pictures before and after cleaning and the amount collected for each day.
- The weight of collected amounts must be plausible and verified by the auditor.

To ensure adherence to social criteria, all immediate social requirements (see ANNEX II – Social Criteria for Ocean-bound Plastic) must be met. OBP collection is to be done exclusively by full-time employees, and no intermediate storage or sub-collectors are involved.

The company`s own and downstream claims of clients must refer to “ocean-bound plastic” if OBP is included. Best practices include providing external stakeholders with an explanation of OBP (e.g., a footnote indicating the 50-kilometer range from the shoreline). OBP cannot be claimed as post-/ pre-consumer material.

5.8 Voluntary Add-Ons under ISCC PLUS

Specific market requirements

In addition to the core requirements of ISCC PLUS, ISCC provides the option to adapt ISCC PLUS certificates to specific market requirements through voluntary add-ons. Depending on the respective add-on, it can be applied for the agricultural production area and for the entire supply chain on a voluntary basis. The modular approach ensures the fulfilment of different market requirements and continuous improvement. All voluntary add-ons can be found on the ISCC website.

6 Waste and Residues

Certification of waste and residues

The ISCC EU System Document 202-05 “Waste and Residues” provides the principles for the certification of raw materials and feedstocks qualifying as “waste” or “residue”. Their supply chains and specific certification requirements may differ from those of the conventional crop-based materials.

Waste definition

The System Document 202-05 is applicable to both ISCC EU and ISCC PLUS. According to the Waste Framework Directive 2008/98/EC (Article 3), “waste” can be defined as “any substance or object which the holder discards or intends or is required to discard”. In any case, the material has reached the end of its intended life cycle. To be eligible for ISCC certification, this status must be proven with relevant documentation. System users and auditors shall use the flow chart “Process to determine if a material is a waste or residue” (Figure 1) to determine whether the ISCC waste/residue process can be applied to their set-ups.

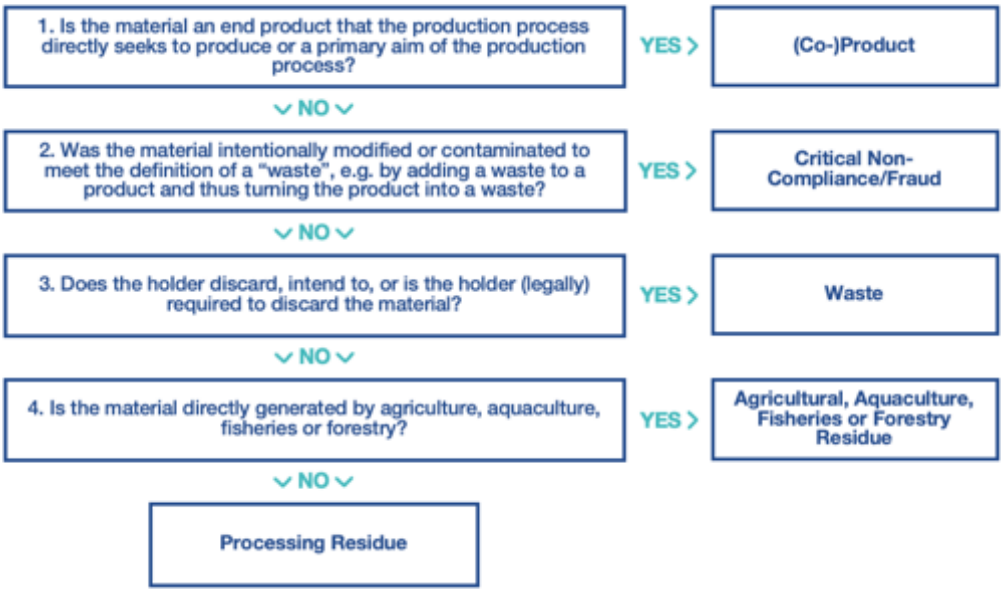


Figure 1: *Process to determine if a material is a waste or residue*

7 The Circular Economy

ISCC supports the development of the circular economy and consequently supports reuse, recovery and recycling with its certification approach.

The concept of circular economy aims to transition our economy's actual linear value chains into a circular form. This means, economic activity shall be decoupled from the use of finite resources, leading to the idea of keeping materials and products in use. Ideally, no waste is generated, but material is reused, recovered or recycled.

7.1 Reuse, Recovery and Recycling

Definitions

Reuse "means any operation by which products or components that are not waste are used again for the same purpose for which they were conceived".

Recovery "means any operation the principal result of which is waste serving a useful purpose by replacing other materials which would otherwise have been used to fulfil a particular function, or waste being prepared to fulfil that function, in the plant or in the wider economy".

Recycling "means any recovery operation by which waste materials are reprocessed into products, materials or substances whether for the original or other purposes. It includes the reprocessing of organic material but does not include energy recovery and the reprocessing into materials that are to be used as fuels or for backfilling operations."[13]

Waste hierarchy approach

The concept of reuse, recovery and recycling is part of the waste hierarchy approach[14] introduced by the Waste Framework Directive 2008/98/EC, which shall be considered in the framework of ISCC. The waste hierarchy approach aims to reduce and manage waste according to a cascading use of resources. When possible, reuse should be favoured over recycling. Recycling should only take place if the further use of the waste would have required an additional processing step. The use of recycled material (e.g., recycled plastic waste) decreases the extraction and use of additional carbon from finite sources. Reducing the exploitation of fossil resources also implies less associated extraction emissions and mitigates environmental pollution caused by waste incineration or waste disposal on landfill sites. In addition, it contributes to the development of a circular economy and reduces overall waste.

7.2 Mechanical and Chemical Recycling

Types of recycling operations

Recycling plastic waste is a process intended to save resources (e.g., virgin raw materials and energy) and minimize harmful environmental emissions. Thus, the collection and sorting of plastic waste should be properly designed

13 *Waste Framework Directive 2008/98/EC, Article 3 (13-17)*
14 *Waste Framework Directive 2008/98/EC (31)*

to deliver recyclable plastic waste fractions fitting reasonably well with the available recycling technologies and with the needs of the identified market outlets. It is preferable that these processes incur minimal environmental and societal costs.

Mixed plastic waste

Examples of recyclable input materials are plastic waste or industrial waste. "Mixed Plastic Waste (MPW)" originates, for example, from waste management companies where it is separated from other waste materials and can be recycled by further mechanical or chemical processing. This provides additional options to promote the circular economy if a direct reuse of plastic waste is not possible. Material covered under "MPW" must be free of paper, biomass and/ or used tires. The point of origin must provide information on the applicable Resin Identification Code (RIC) categories on the self-declaration, if applicable. Group-certified Points of Origin that generate mixed plastic waste must sign the appropriate ISCC self-declaration, assuring that the material is a waste.

The Waste Framework Directive 2008/98/EC sets out a general order of priorities for waste management. According to this document, recycling of plastic material is more advantageous than energy recovery. The recycling of plastics covers mechanical and chemical recycling technologies and processes.

Mechanical recycling preserves the polymer structure without significant alteration, keeping the plastic as a material. Activities of a mechanical recycling plant can be:

- Sorting (e.g., dry/wet sorting, float/sink separation, etc.)
- Washing
- Shredding/grinding/crushing
- Compressing
- Melting/pelletizing

Chemical recycling refers to the conversion of polymers into their monomers, chemical building blocks or basic chemicals, e.g., via depolymerization by means of thermochemical or other chemical processes.

Considering the total energy consumption, the minimization of harmful process emissions, the social and health protection of workers, and the avoidance of disproportionate costs, mechanical recycling should be preferred to chemical recycling of plastic waste. Sorting companies must have sufficient measures and processes in place to consider these issues and to determine how plastic waste will be recycled. The use of chemical recycling should be complementary to mechanical treatment methods. Chemical recycling should be applied where:

- Mechanical recycling is not technically feasible,
- Mechanical recycling is not economically viable,

> Mechanical recycling leads to low-quality products, or

> Mechanical recycling has a higher negative environmental impact.

Due to the preference for mechanically recycled quantities in cascade utilization and the described advantages, chemically and mechanically recycled batches of materials and product quantities should be documented separately in mass balance documentation.

7.3 Additional Requirements for Recycling according to EN 15343

Recycling under ISCC can also comply with EN 15343 (voluntary add-on requirements) if the following conditions are met:

Traceability

> Traceability aligns with the existing ISCC approach for mixed plastic waste: for household waste (post-consumer), sorting centres are designated as the points of origin; for (post-) industrial waste, the industrial plant (specifically the plastic producer or converter where the waste originates) is considered the point of origin.

> All certified operators must keep records on incoming and sorted products as shown in table 1. Batch identification and specification of the batch characteristics following the relevant standard (EN 15342, 15344, 15345, 15346, 15348) must be provided.

Origin of the material	Material type/form
	Product type
	Type of waste e.g. pre-user, post user, demolition waste
	Where it came from (supplier identification)
	Date
	History of waste (e.g. known contact with hazardous substances)
Handling of the material	Collection (transporter/type of transport)
	Sorting
	Batch size, identification and marking
	Pre treatment (e.g. washing, grinding)
	Storage (e.g. outside)
Test carried out before processing	EN 15347 Plastics recyclate characterisation of waste plastics
	Or as appropriate for the end use application
Process parameters	Details of the process used as appropriate
Tests carried out after processing	EN 15342
	EN 15344
	EN 15345
	EN 15346
	EN 15348

	Or any other standards as appropriate for the end user application
Intended (suitable) application	Details of appropriate or inappropriate applications
Other optional information as agreed between buyer and seller.	
This list is not exhaustive.	

Table 1: Overview of additional information for sustainability documentation

To identify the recycled content of a product (percentage by weight of recycled material in a product), the following formula is used:

$$\textit{Percentage recycled content of the product} = \textit{mass of recycled materials in the product} / \textit{total mass of the product} \; x \; 100$$

Recycling process

The collection and sorting scheme are properly designed to deliver recyclable plastic waste fractions fitting with available recycling technologies and the needs of identified market outlets, preferably at minimum costs. The input materials are controlled according to EN 15347.

The recycling process produces material that meets the requirements for the intended applications. Process variables need to be recorded. For specific applications i.e. food applications, challenge tests demonstrate that the process is capable of delivering products with certain specified properties. Products delivered by the process require quality control testing.

Quality assurance

All certified operators have records of the quality control carried out including incoming materials, processes, finished materials or products (a quality management system certified to EN ISO 9001 may suitable). Specification and standard deviation or range of values within and between batches of materials are agreed upon between supplier and purchaser (within the limitations of ISCC requirements). The statement of recycled content or documentary of the previous history of the material is always available, additional analytical methods are possible.

8 Requirements for Traceability

Traceability

According to the 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. 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.

8.1 Basics

According to ISCC, economic operators along the physical supply chain have to demonstrate compliance with the sustainability criteria of ISCC PLUS, e.g. the raw material category and evidence that the land related sustainability criteria of ISCC for the production of the raw materials have been fulfilled. This information is hereafter collectively referred to as 'sustainability characteristics'.

Supply chain elements

A valid certificate provides evidence that the certified element complies with the criteria of the ISCC standard. Under ISCC, the following elements of the supply chain are subject to certification:

- Farms and plantations,
- Points of origins,
- First gathering points,
- Central offices,
- Collecting points,
- Traders,
- Storage facilities,
- Processing units,
- Limited risk distributors, and
- Final product refiners.

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 sustainable materials (e.g. delivery documents, means and distance of transport, and respective greenhouse gas emissions) are covered by the certification of the aforementioned economic operators.

Sustainability Declarations

Evidence of the sustainability characteristics of a sustainable 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 sustainable material that has to be issued by

the supplier for each delivery of sustainable 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 sustainable and are not allowed to issue Sustainability Declarations according to this standard. Recipients of sustainable materials have to 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.

Self-declarations

Self-declarations are forms that have to be completed and signed by farms or plantations and points of origin for waste and residues materials before they can deliver sustainable material into the supply chain. This is a mandatory requirement for farms/plantations and points of origins which are not individually certified.

Step-by-step traceability

Under ISCC, the identification and tracking of the origin, processing history, distribution and location of materials can be done "step-by-step" through the entire supply chain (Figure 2). The information provided on the Sustainability Declarations that are passed through the supply chain is crucial for this approach.

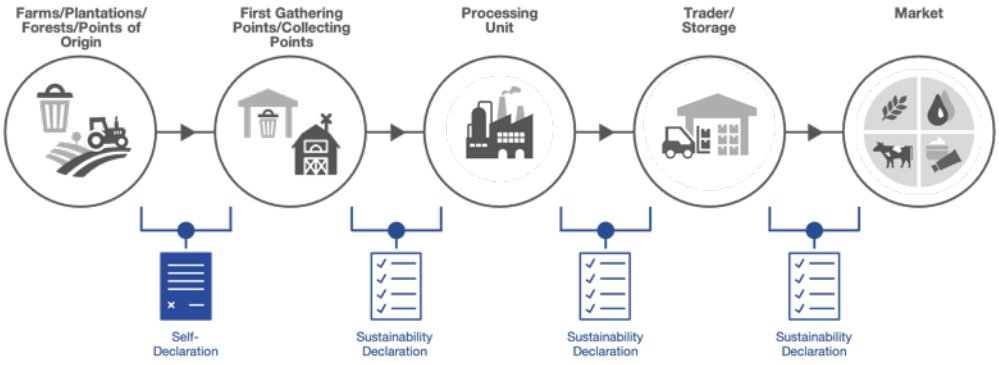


Figure 2: Step-by-Step Traceability of Sustainability Characteristics through Sustainability Declarations

8.2 Minimum Requirements for the Management System

Appropriate management system

The management system describes the scope of responsibilities and internal company processes and procedures for ensuring that an economic operator is able to implement and update all of the requirements for achieving 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 have to 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 sustainable 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 has to be adequate regarding the nature, scope and quantity of the required activities. Risk management factors also have to be considered when designing the management system (see ISCC EU System Document 204 “Risk Assessment”).

8.2.1 Responsibilities of the Management

Commitment of management

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

Internal audits

The management of a company has to conduct regular internal audits regarding compliance with this standard.

Key employee task

The management has to identify and nominate competent employees at critical control points whose tasks include 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 employees include:

1 Sourcing, first gathering or registration of incoming sustainable products, identification of origin and evaluation of the quantity of sustainable products and – if applicable – related GHG emissions

2 Conversion or processing of sustainable products and/or evaluation of the portion of sustainable products and – if applicable – related GHG emissions

3 Delivery, storage, sales and distribution of sustainable products and evaluation of the quantity of sustainable products and – if applicable – related GHG emissions

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

8.2.2 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. This documentation has to contain at least 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 (and – if applicable – GHG requirements)

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

Critical control points

The company has to establish and maintain a reporting system that satisfies the requirements and operates effectively and efficiently. Furthermore, it has to 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 have to 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 sustainable products (e.g. weighbridge tickets, bill of lading and Sustainability Declarations)

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

4 Records on the periodic reporting on opening and closing stock for incoming and outgoing sustainable and non-sustainable material

5 List and contracts with all suppliers (including farms/ plantations, points of origins and certified suppliers) and recipients of sustainable material

6 List and contracts with subcontractors and service providers related to sustainable products

7 Records regarding data transfer to the certification system chosen by this company or 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, 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 have to operate a periodic reporting system (e.g. monthly and yearly/calendar year) regarding the incoming quantities and storage levels at the beginning and end of the period, and the outgoing quantities of sustainable

and non-sustainable products. Companies are obliged to inform their certification body immediately if any discrepancies occur in the documentation, reporting and material flow.

Transfer of information

All companies handling and supplying sustainable products to other companies are obliged to provide their recipients with all of the necessary documents and sustainability and – if applicable – GHG 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.

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

8.2.3 Qualification and Training of Employees

Competent staff

The company has to ensure that all members of staff responsible for and working on the implementation and maintenance of the sustainability, traceability, chain of custody and – if applicable – GHG requirements shall be competent and have the appropriate training, education, skills and experience. For 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

8.2.4 Technical Equipment

Technical facilities

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

8.2.5 Internal Audits

Annual internal audit

The company has to 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 have to be taken into account for the internal audits.

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

8.3 General Information and Documentation Requirements

Appropriate information and documentation for incoming and outgoing sustainable 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

have to 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.

8.3.1 General Requirements

Incoming and outgoing materials

Companies have to keep the following records for all incoming and outgoing sustainable materials respectively:

- List with names and addresses of suppliers and recipients of sustainable products
- 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 sustainable material
- Quantity bookkeeping for sustainable and non-sustainable material and, if applicable, a mass balance calculation
- In the case of individual GHG calculations, the GHG calculation itself, as well as the input data used for the calculation

Disclosure of all schemes used

Records and documentation on traceability, quantity bookkeeping, mass balance and – if applicable – GHG emissions have to be up to date. They must be fully accessible to the auditor in the audit process. 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 has to be provided to the auditor, including the name of the scheme and certification scope (see also ISCC 201 “System Basics”). Furthermore, all records regarding the quantity bookkeeping and mass balance calculations for the other certification schemes used have to be made available to the auditor. This is crucial to verify that no double-accounting (or multiple accounting) of sustainable material is taking place. For further information, see also Chapter 9.2. This should also mitigate 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 have to be made available to the auditor.

8.3.2 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 material. The Sustainability Declaration covers the sustainable amount of material of a delivery.[15]

Chain of custody option

The interrelation of a Sustainability Declaration and the respective physical delivery depends on the chain of custody option applied. This means that in the case of segregated deliveries, the information on the Sustainability Declaration reflects the product physically delivered. If the traceability is based on mass balance, 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, heating values and/or conversion factors (i.e. soybean is a different product group to rapeseed). This means, for example, that it is not permissible to issue a Sustainability Declaration referring to soybean for a physical delivery of rapeseed. Fossil fuels and biofuels are different product groups. Even if sustainable renewable fuels, biofuels or fossil fuels have similar chemical characteristics, a fossil fuel cannot be regarded as non-sustainable material within a specific product group.

Valid certification

A supplier of sustainable material must be in possession of a valid certificate on the date of the dispatch of the sustainable material. 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. A recipient of sustainable 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. The receipt of sustainable material is also only possible if the recipient has a valid certificate (for exemptions for first gathering points and collecting points see Chapter 8.4).

Complete and correct information

The recipient of the Sustainability Declaration has to 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.

15 Non-sustainable parts of the delivery cannot be included in the amount of certified material stated on a Sustainability Declaration.

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 a Sustainability Declaration

If there is incorrect information, it may be 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 cancels or corrects the corresponding information from the mass balance. The supplier of the Sustainability Declaration has to inform the recipient, their respective CB and ISCC in writing about the intention to cancel or correct one or more specified Sustainability Declarations. The CB of the recipient must confirm in writing to the supplier, their 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 has to 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

To handle returns of sustainable 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. In case a Sustainability Declaration has already been issued (30 days timeframe), the supplier could re-book the goods in its bookkeeping, as long as the refused acceptance is documented and verifiable for the auditor.

Option 2**:** The goods are returned and the customer issues a Sustainability Declaration to the supplier. In this case, the supplier must have booked out the corresponding quantity in the bookkeeping. The returned goods can then be booked in again (based on the information provided in the new Sustainability Declaration).

Application of definitions

When reporting on the type of raw material, the relevant definitions of the ISCC Material List have to be applied. See ISCC EU System Document 201 "System Basics" for a list with relevant definitions.

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 sustainable material.

Aggregation of Sustainability Declarations

It is possible to aggregate Sustainability Declarations for a number of deliveries of batches of material, i.e. to issue one Sustainability Declaration for a number of deliveries of sustainable material. In order to do so, the following conditions have to be fulfilled:

- All material has identical sustainability characteristics
- The period for all deliveries should not exceed one month. The whole delivery period has to 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 where the material is supplied to the location where the material is received must not change 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, no provisions are made with regard to the form or layout of the Sustainability Declarations. Economic operators can develop a template for a delivery note which includes all the required sustainability information. Alternatively, they can attach a document with the required sustainability information to existing delivery documents (e.g. bill of lading). ISCC provides templates for Sustainability Declarations, e.g., for raw materials, intermediate products and products. The use of the templates is voluntary. The templates are available as downloads on the ISCC website.

8.3.3 General Information of Sustainability Declarations

Content of Sustainability Declarations

The following general information must be available on Sustainability Declarations for all incoming sustainable material as well as on the Sustainability Declarations issued by the certified party for all sustainable output material. Specific information requirements for each supply chain element are included in Chapter 8.4.

Under ISCC PLUS, specific information is required for Sustainability Declarations.

General information

Information to be forwarded

- Name and address of the supplier
- Name and address of the recipient
- Related contract number
- Date of dispatch of the sustainable material
- Address of dispatch/shipping point of the sustainable 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)[16]
- Raw material category (see Chapter 5.4)
- 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:
  - Statement “The raw material complies with the sustainability criteria according to the ISCC ‘Sustainability Requirements’ as laid down in ISCC System Documents 202-01/-02 for agricultural biomass (or 202-03/-04 for forest biomass)”
- Information on chain of custody option 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
- Raw material (e.g. corn, UCO, MPW)

16 *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 has to 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”).*

> Country of origin of the raw material

> Statement on applied add-ons in case of the application of add-ons under ISCC PLUS, the following additional product-related information can be stated on the Sustainability Declaration:

1) Name(s) of add-on(s), under which the equivalent amount of material has been certified or acquired

2) For add-on 205-01 “GHG Emissions”:

   - Statement of GHG emissions of product in kg CO2eq emissions per ton of product (either use of disaggregated default value or individually calculated GHG value)
   - Means of transport and transporting distance (only in case the disaggregated default value for transport is not applied)
   - Voluntary: Separation of different emission sources along the supply chain

3) For add-on 202-03 “SAI Gold”:

   - “ISCC Compliant” material including the add-on “SAI Gold” can be claimed as “Equivalent to FSA 2.0 Gold Level”

4) For add-on 205-02 “Consumables”:

   - Relevant consumables, which are transferred (e.g. water consumption) and individual value in the respective unit per product (e.g. in litre water/ton product)

Documentation for deliveries to non-certified clients

Deliveries of ISCC certified material must always be accompanied by the Sustainability Declaration. If “ISCC Compliant material” is sold to clients that are not ISCC certified and/or 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 sustainable 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 book-keeping requirements for the mass balance(s).

GHG information

In case the GHG Add-on is used, one of the following options has to be applied for the GHG emission information. Please see ISCC EU System Document 205 “Greenhouse Gas Emissions” for further information.

1 Statement: **“Use of total default value”**, OR

2 Statement that disaggregated default values are used. In this case the statement “Use of disaggregated default value for (respective calculation formula element)” has to be made on the Sustainability Declaration. Further specifications have to be made if relevant:

- Process technology, e.g. for a palm oil mill, the following statement could be made: “Use of disaggregated default value for processing (process with methane capture at the oil mill”).
- If the disaggregated default value does not cover the entire pathway of the element (e.g. for a sunflower oil refinery the following statement could be made “Use of disaggregated default value (DDV) for oil extraction only”), AND/OR

3 Statement of an **actual value in kg CO_2eq per dry-ton of product.** If applicable, for raw materials and intermediary products the information on GHG emissions have to be provided in the unit kg CO_2eq/dry-ton of raw material or kg CO_2eq/dry-ton of intermediary product respectively. For e_{td} (transport and distribution) the means of transport and the transportation distance from the supplier to the recipient have to be included on the Sustainability Declaration

In case of using option 2 or 3 the relevant calculation formula elements have to be reported separately:

> e_{ec}: Emissions from the extraction or cultivation of raw materials (not relevant for waste and residues)

> e_p: Emissions from processing

> e_{td}: Emissions from transport and distribution

If one or more of the elements below was calculated, only option 3 can be applied. In this case, separate reporting has to be included for every relevant element:

> e_l: Emissions from carbon stock changes caused by land-use change (if applicable, the bonus for severely degraded land e_B of 29 g CO_2/MJ can be taken into account) (see ISCC EU System Document 205 “GHG Emissions”). This information has to be explicitly stated in the Sustainability Declaration

> e_{sca}: Emissions savings from soil carbon accumulation via improved agricultural management can be applied for improved agricultural and manure management if animal manure is used as substrate for the production of biogas and biomethane. (see ISCC EU System Document 205 “GHG Emissions”) This information has to be explicitly stated in the Sustainability Declaration

> e_{ccs}: Emission savings from carbon capture and geological storage

> e_{ccr}: Emission savings from carbon capture and replacement

Important note: Only actual values (including NUTS2 values for extraction and cultivation e_{ec}) can be stated in kg CO_2eq emissions per dry-ton of product. For the other options **no values but only the statements** (‘use of

total default value' or 'use of disaggregated default value for the relevant element of the supply chain') are provided on the Sustainability Declaration.

8.3.4 Information Requirements for Internal Company Processes

Information for quantity bookkeeping

No Sustainability Declarations are issued for internal processes within an operational unit. However, in order to ensure that the amount of outgoing sustainable material does not exceed the amount of incoming sustainable materials the economic operator must carry out periodical reporting. This provides the basis for the quantity bookkeeping (e.g. the mass balance). The following records have to be maintained if an economic operator stores sustainable material or conducts processes that impact on the physical and/or chemical properties of the sustainable 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, if required for GHG calculation or other purposes
- Quantities of waste or residues if required for GHG calculation or other purposes
- Relevant yields/conversion factors
- Allocation factors (if applicable)
- GHG process emissions (if applicable)
- Date of production (if required)

8.3.5 Self-Declarations/Self-Assessments

Mandatory self-declaration/ self-assessment

The obligation for certification according to this standard starts with the first gathering point and collecting point respectively. Farms or plantations and points of origin of waste and residue materials may gain individual certification or group certification under a central office on a voluntary basis. All farms or plantations 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 have to 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 sustainable material up to the farm/plantation or point of origin. By signing the self-declaration, a farm/plantation or point of origin declares compliance with all legal obligations and the relevant ISCC requirements, confirms the type of raw material provided as 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/plantations or points of origins, respectively, if they have received a signed self-declaration. No party other than the farm/plantation or point of origin is allowed to sign the self-declarations with the exception of FPR Group certification approach (see Chapter 8.5.7). Farms/plantations and 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, central office or collecting point.

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/ plantation 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 origins

For points of origins 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 has to 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/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/plantations voluntary add-ons are additionally certified, the respective farms/plantations have to 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 has to provide a list of all farms/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.

8.4 Specific Requirements for Elements of the Supply Chain

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

8.4.1 Farms or Plantations

Certification options

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[17] which has control regarding compliance with ISCC requirements. (see also Annex II regarding the identification of farms/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[18]
- As part of a group of farms delivering to a first gathering point

Self-assessment and self-declaration

Farms and plantations participating in group certification have to 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-

17 *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*

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

assessment/self-declaration has to be available during the audit. Farms/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.

Compliance with land-related requirements

Biomass produced on land that complies with ISCC Principles 1 – 6 (please see Chapter 5.3) is considered sustainable. The ISCC Principle 1 specifies the land-related legal requirements that 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'.

Immediate requirements

A farm or plantation must comply with all requirements stated in ISCC Principle 1 and all immediate requirements of ISCC Principles 2-6 when it starts supplying sustainable material. 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.

Continuous improvement process

The short-term and mid-term requirements specified in ISCC Principles 2-6 have to 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 highlighted on Sustainability Declarations and/or certificates.

No cherry picking

The audit of a farm or plantation must always cover the entire land area (agricultural land, pasture, forest, or 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 that comply with ISCC requirements but not the areas of the farm or plantation that may not comply with the requirements ("cherry picking") is not permitted under ISCC.

Non-compliance

Farms or plantations that are audited non-compliant with ISCC requirements or that 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 which are audited and found to be non-compliant or which refuse to be audited as a part of a sample (see also Chapter 8.5.5).

Service providers and sub-contractors

Farms and 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.

Plausibility check

Farms or plantations do not need to operate a mass balance system. However, the chain of custody requirements include the documentation of amounts and origin of material as well as documentation reflecting that the yield per hectare times field size in hectare is plausible compared to the related quantity of biomass stored and delivered as either sustainable or non-sustainable. This is relevant for the plausibility check in the framework of the audit.

Additional Audit Requirements for Farms or Plantations

The farm or plantation has to 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)
- 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)

Farms or plantations delivering to a first gathering point have to receive a document from the first gathering point 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
- Name and address of the farm or plantation

- Unique batch number
- Type(s) of crop or agricultural crop residue
- Weight of the delivered crop(s) or agricultural crop residue(s) in metric tons
- Date of receipt of sustainable crop(s) or agricultural crop residue(s)
- If GHG Add-on is applied, GHG emissions information (see below)

Additional Requirements for Sustainability Declarations issued by Farms or Plantations

Issuing of Sustainability Declarations

Farms or plantations that are certified individually or as part of a central office have to issue Sustainably Declarations for their outgoing raw material (sustainable crops or agricultural crop residues). In addition to the general information stated in Chapter 8.3.2 the following information has to be included:

- Group member number (in case of certification under a central office)
- – If applicable – GHG emissions information for emissions from extraction and cultivation (e_{ec})
  1. Statement: “Use of total default value”, OR
  2. Statement “Use of disaggregated default value for cultivation (e_{ec})”, if the requirements of the RED II are fulfilled (i.e. if a default value for the crop exists
  3. Statement of an actual value in kg CO_2eq/dry-ton of biomass.

  For the two elements stated below individual calculations are required. If applicable, the respective values also need to be forwarded separately on the Sustainability Declaration:

  - e_l: Emissions from carbon stock changes caused by land-use change (and separate information if the bonus for severely degraded land e_B can be applied) (see ISCC EU System Document 205 “GHG Emissions”)
  - e_{sca}: Emissions savings from soil carbon accumulation via improved agricultural management (and separate information if the bonus for animal manure used as substrate can be applied) (see ISCC EU System Document 205 “GHG Emissions”)

8.4.2 Central Office for Farms/Plantations

Group certification

A central office is the representative body of at least one group of homogeneous farms or plantations that are certified as an independent group of agricultural producers. A group of farms or plantations is regarded as

homogeneous if they are, for example, located in geographic proximity and are similar in their size, cultivated crops 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.

Group members

A sample of all group members is subject to an audit. At least one farm or plantation has to be audited in the scope of the certification of a central office. A list of all farms/plantations 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. The central office is responsible for the calculation of the greenhouse gas emissions of the group. Each group member is responsible for issuing Sustainability Declarations for their respective deliveries of sustainable raw material. A copy of each Sustainability Declaration has to be provided to the central office. The central office has to keep a quantity bookkeeping system on the basis of the outgoing Sustainability Declarations. For further information on the group certification, see Chapter 8.5.5.

Additional Audit Requirements for Central Offices

For traceability purposes the central office has to provide the following records:

- List of all the farms or plantations 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

Additional Requirements for Sustainability Declarations for Central Offices

Sustainability Declarations are issued by each farm or plantation that is a member of the group. The general requirements (Chapter 8.3.2) and additional requirements for farms or plantations apply.

8.4.3 First Gathering Point

Direct sourcing from farms or plantations

First gathering points are economic operators that buy and receive the sustainable crops or agricultural crop residues directly from the farms or plantations. They then further distribute, trade or process this biomass. First gathering points have a contractual relationship with the supplying farms or plantations for the delivery of crops or agricultural crop residues and have to receive a signed self-declaration/self-assessment from each farm or plantation before the first delivery of the sustainable biomass. They have to conduct internal audits at their supplying farms or plantations. An important characteristic of a first gathering point is the task of determining and documenting the incoming biomass according to its origin, quality, amount and greenhouse gas emissions for cultivation. For further information on group certification requirements see Chapter 8.5.

Audit requirements

First gathering points are audited regarding the requirements of the management system, traceability, chain of custody and greenhouse gas emissions. A sample of all farms or plantations that have signed a self-declaration is subject to an audit in the scope of the certification of the first gathering point. At least one farm or plantation has to 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.

Traceability and mass balance

The first gathering point is responsible for ensuring the traceability of sustainable material back to its origin and to comply with the mass balance requirements under ISCC. A mass balance 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/plantations need to be taken into account in the framework of the audit to verify the amount of sustainable biomass provided by farms/plantations (plausibility check).

GHG emissions

In case of GHG Add-on, a first gathering point is also responsible for the correct determination of the greenhouse gas emissions for cultivation for the incoming biomass and is responsible for verifying whether specific options to state greenhouse gas emissions (for example, disaggregated default value for cultivation or NUTS2 values) can be applied.

Evidence of sustainable material

It is the responsibility of the first gathering point or collecting point to provide evidence to the CB of which sustainable materials are (or will be) received from farms or from points of origin. 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 certificate.

Storage facilities

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 external storage facilities store sustainable biomass entirely on behalf of a first gathering point they are considered to be dependent warehouses, i.e. they do not individually buy biomass from farms or

plantations and sell it to customers in their own name. Such dependent storage facilities can be covered by the certificate of the first gathering.

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 8.5 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 storage facilities.

Local agents or country dealer

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 and first gathering points. In all cases, the first gathering point has to comply with all of the relevant requirements according to this standard. If local agents or country dealer act in their own name (i.e. by buying biomass from farms/plantations, holding the self-declarations and selling the biomass in their own name) these local agents or country dealer act as first gathering points and have to become certified individually.

Scope specific transactions

All biomass that is received directly from farms or plantations is covered under the first gathering point scope is all biomass that is received directly from farms or plantations (with a self-declaration or from individually certified farms or plantations). If a first gathering point also buys sustainable material from certified suppliers other than farms or plantations (e.g. other certified first gathering points, traders, etc.), an additional certification as a trader is required.

Acceptance of material prior to certification

First gathering points may accept crops or agricultural crop 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 have to be in place at the date of receipt of this biomass, and the first gathering point has to fulfil all chain of custody requirements. All deliveries which a first gathering point receives from farms or plantations that have signed a self-declaration have to be booked into the quantity bookkeeping as being sustainable. The first gathering point can only dispatch and merchandise the biomass as being sustainable after the start of validity of the certificate.

Additional Audit Requirements for First Gathering Points

In addition to the documentation and information required under Chapter 8.3.1 the first gathering point has to document the following:

- List of all farms or plantations supplying crops or agricultural crop residues including, at the least the full names and addresses of the farms or plantations
- Self-declarations/ self-assessments of farms or plantations delivering crops or agricultural crop 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, the name of certification scheme and the number of the group member in the case of deliveries from individually or group-certified farms or plantations
- 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

Additional Requirements for Sustainability Declarations of First Gathering Points

Information transfer

The Sustainability Declarations for outgoing sustainable material have to contain the information as specified in Chapter 8.3.3.

For each delivery of sustainable material from a farm or plantation which has provided a self-declaration, the weighbridge protocols of the incoming sustainable biomass have to be supplemented by the following information:

- Name and address of the farm or plantation
- Name and address of the first gathering point or related warehouse to which the sustainable biomass is delivered
- Unique batch number
- Amount and type of each crop or agricultural crop residue
- Related contract number
- Means of transportation and transporting distance

The first gathering point has to provide a document to the farm or plantation delivering sustainable biomass containing the following information:

- Name and address of the first gathering point and, if the material is delivered to a storage facility related to the first gathering point, the name and address of the storage facility
- Name and address of the farm/plantation
- Unique batch number
- Type(s) of crop or agricultural crop residue
- Weight of delivered crop(s) or agricultural crop residue(s) in metric tons
- Date of receipt of sustainable crop(s) or agricultural crop residue(s)
- If GHG Add-on is applied, GHG emissions information (see below)

  GHG emissions information for emissions from extraction and cultivation (e_{ec})

1 Statement: “Use of total default value”, OR

2 Statement “Use of disaggregated default value for cultivation (e_{ec})”, if the requirements of the RED II are fulfilled (i.e. if a default value for the crop exists

3 Statement of an actual value in kg CO_2eq/dry-ton of biomass. NUTS 2 values also need to be forwarded as a number in kg CO_2eq/dry-ton of biomass

For the two elements stated below an individual calculation is required. If applicable, the respective values also need to be forwarded separately on the Sustainability Declaration:

> e_l: Emissions from carbon stock changes caused by land-use change (and separate information if the bonus for severely degraded land e_B can be applied) (see ISCC EU System Document 205 “GHG Emissions”)

> e_{sca}: Emissions savings from soil carbon accumulation via improved agricultural management (and separate information if the bonus for animal manure used as substrate can be applied) (see ISCC EU System Document 205 “GHG Emissions”)

8.4.4 Point of Origin for Waste and Residues

Definition

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). Waste plastic is prepared for introduction to the certified recycling collecting point at the Point of Origin. In any case, it must be proven at the Point of Origin that the first material in the supply chain is a waste, meaning that a.o. the material was not intentionally produced and its further use requires an additional processing step other than normal industrial practice. 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. Recovered material is defined by this ISO norm as “material that would have otherwise been disposed of as waste or used for energy recovery but has instead been collected and recovered as a material input, in lieu of new primary material, for a recycling or manufacturing process”. This means, the

material enters a supply chain again as a feedstock for further production and hence promoting the circular economy.

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

- Individual certification
- As part of a group organised under a central office
- As supplier to a collecting point

Assessment of waste/residues

Points of origin delivering sustainable 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 Chapter 5.6), 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 waste / processing residues (pre-consumer material – definition in Chapter 5.6) occurs / is 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.

Zero GHG emissions assumed

Any audit of a point of origin includes an assessment of the materials to determine if they meet the definition for waste and residues. For points of origins, no determination of greenhouse gas emissions is required for voluntary GHG Add-on, i.e. zero GHG emissions are assumed at the point of origin.

Agricultural and forestry residues

In the case of residues directly derived from or generated by agriculture (e.g. straw, husks or shells), aquaculture, fisheries and forestry, the point of origin is a farm, plantation or forest management unit. In the case of residues from aquaculture, fisheries and forestry the point of origin is the equivalent to a farm or plantation for agriculture (see also Chapter 8.4.1). For those points of origin, a sample has to be audited in the framework of the collecting point or central office certification regardless the amount of waste/residue generated.

Waste and processing residues

For waste and processing residues, different set-ups can be identified. In particular, 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.

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.

In the following, different categories of points of origin, their relationship to the collecting point, their risk exposure and the particular requirements for the certification and audit process are specified:

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

If 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).

Sample audits of points of origin

Businesses and companies generating 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 generated. Therefore, it is not usually necessary to conduct an on-site audit, unless there is indication or evidence of non-conformity with ISCC requirements. Businesses and companies generating more than 10 metric tons of a waste or residue material per month (or more than 120 metric tons per year) are considered to have a higher risk of fraud due to the higher amount of material generated. 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 certification of the collecting point or central office (see Chapter 8.5 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 generated.

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. Due to the fact that such sites might accumulate high amounts of material, they are subject to on-site audits based on a sample according to the principles specified under point “Businesses and Companies”.

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

UCO from households

Some EU Member States 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. In order 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 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 has to 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 UCO can include (but are not limited to) for example: 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 waste water (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 has to 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 (e.g. UCO) 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).

8.4.5 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 e.g. for rendering plants operated by the same company, and where each point of origin regularly generates waste and residues above the threshold of 10 metric tons per month.

Points of origin certified under a central office can sell their products directly to third parties.

The central office is responsible for the management of the group. A central office is audited with respect to its management system, traceability and chain of custody, and GHG emissions. A sample of all points of origin that are members of the group may be subject to an audit (see Chapter 8.5 for further information).

8.4.6 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, crude glycerine, tall oil pitch) directly from the points of origin where the waste and residues are generated. For agricultural crop residues generated on farms/plantations the first gathering point is regarded as the collecting point (see above), or the equivalent for aquaculture, fisheries and forestry residues.

Responsibilities

Collecting points either sell, distribute or process the collected waste and residues. Collecting points are responsible for the correct declaration and documentation of the types and amounts of collected waste/residues materials. Due to their role and responsibilities collecting points are the first elements in waste/residues supply chains which require an individual certification. Collecting points receive a certificate upon a successful audit. They will be audited regarding their management system, traceability, chain of custody and if applicable greenhouse gas requirements. The collecting point is responsible to ensure the traceability of sustainable material back to its origin and to comply with the mass balance requirements under ISCC. A mass balance must be kept for each location where sustainable material is stored on behalf of the collecting point.

Scope specific transactions

The scope collecting point covers are all waste and residues collected or received directly from points of origin (with a self-declaration or from individually certified points of origin). If a collecting point also receives sustainable material from certified suppliers other than points of origin (e.g.

other certified collecting points), an additional certification as a trader is required.

Self-declarations must be available

Collecting points collecting waste and residues as sustainable from (not individually certified) points of origin must receive a signed self-declaration from these points of origin. Only when a self-declaration has been signed by the point of origin can the collected material be considered sustainable (see Chapter 8.3.5 for different options to implement self-declarations). Material which has been collected from points of origin which are not certified individually and have not signed a self-declaration must be considered as non-sustainable. The self-declaration must be issued to the certified collecting point and must be available during the audit.

Audit of sample of points of origins

A sample of (not individually certified) 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. See Chapter 8.5 for information on how the sample size is calculated and determined.

List of suppliers

Collecting points must keep an up-to-date list of all suppliers of sustainable material. This includes points of origin supplying waste and residues with a self-declaration as well as individually certified suppliers.

Verification of existence of points of origin

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[19] shall verify the volumes supplied and existence of a sample of the points of origins on the list. The auditor has to 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: $\sqrt{500} = 22.36$. 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

Economic operators that only collect waste and residues on behalf of a collecting point are regarded as dependent collecting points and do not need to be certified individually. However, they have to be audited on a sample basis in the scope of the audit of the collecting point. The same applies for external storage facilities used collecting point. A sample of those storage facilities has to be audited in the scope of the certification of the collecting point. (see Chapter 8.5) The collecting point has to keep a list of all dependent collecting points and/or external storage facilities used. It is the responsibility of the collecting point to ensure that the certification body and ISCC are able

19 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.

to assess and evaluate compliance with the relevant requirements at relevant service providers. This can e.g. be included in the respective contractual agreements between the collecting point and the service provider.

Acceptance of material prior to certification

All deliveries, which a collecting point receives from points of origin that have signed a self-declaration, have to be recorded in the quantity bookkeeping as being sustainable. Collecting points may collect waste and residues from points of origin as sustainable up to three months prior to the start of the validity of the certificate. The signed self-declarations from the points of origin have to 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 biomass as being sustainable following the start of validity of the certificate.

Summary Audit Requirements for Collecting Points

- 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
- Certificate numbers, the name of the certification scheme and the number of the group member in the case of deliveries from individually or group-certified points of origins and other certified suppliers
- 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

Requirements for Sustainability Declarations of collecting points

The information requirements as stated in Chapter 8.3.3 apply to Sustainability Declarations issued by collecting points.

8.4.7 Traders and Storage Facilities

Trading and storing

Traders and storage facilities are economic operators that trade (i.e. buy and sell) or store sustainable 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 sustainable material on behalf of the owner of the sustainable material. If a storage facility is also trading sustainable material it has to be additionally certified as trader.

Certification options

All traders and storage facilities trading and/or storing sustainable materials must be covered by certification.

Storage facilities have three options to be covered under ISCC 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, processing unit, trader with storage)

Storage available to third parties

In order to decide which certification option is suitable for a storage facility it should be considered if the storage facility will be available to third parties. When certified individually or as part of logistics centre a storage facility can store sustainable material from third parties without being considered for the sample audits in the framework of the certification of the third party (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 points, collecting points, traders or final product refinement) use (own or rented) storage facilities but do not offer storage to third parties. If all relevant documentation can be fully verified remotely by the auditor 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 is a regular risk setup[20] with low complexity of market activities, clear documentation reflecting all traceability requirements (e.g. centralized barcode database) and a structured management system containing relevant critical control points and responsibilities.

Audit scope

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 sustainable material. If the warehouse or logistic centre is owner of sustainable material it also has to be certified as trader (see below for further information).

Sample audits

For the certification of a logistic centre a sample of all storage facilities used for sustainable material is audited (see Chapter 8.5 for rules to calculate the sample). The same applies to the certification of storage facilities in the framework of the certification of a third party (e.g. first gathering point,

20 *This should refer to the lowest risk according to ISCC EU 204 "Risk Management"*

collecting point, trader, processing unit). Here, 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. Logistic centres have to keep an up-to-date list of all storage facilities used for sustainable material (including trade name and complete address). Third parties using storage facilities have to keep a list of all storage facilities used for sustainable material (including trade name, address and valid certificate number if storage is covered by individual or logistic centre certification). In both cases the list has to be kept up-to-date and the certification body has to 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 certificate must enable the auditor to verify compliance with the ISCC requirements and must grant access to all relevant premises.

Site-specific mass balances

The requirements regarding traceability and chain of custody apply to every individual storage site. This means that site-specific mass balances have to 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 mass balances. During the audit the auditor has to check the mass balance of each individual storage location. It is not sufficient to only check a sample of the site-specific mass balances.

Reference to storage site on Sustainability Declaration

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

Trader with storage vs. paper trader

Traders buy and sell sustainable materials. All traders of sustainable material have to be covered under ISCC certification. 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 sustainable material (i.e. no use of own or rented storage facilities) have to be certified under the scope ‘trader’.

Link to physical material required

Any trade of sustainable material under ISCC always refers to a specific batch of sustainable material and a Sustainability Declaration is issued for each delivery of sustainable material which is linked to a specific amount of physical sustainable material (see Chapter 8.3.1). The issuance and trading of Sustainability Declarations without the link to an equivalent amount of physical sustainable material is considered as book-and-claim and thus not allowed under ISCC.

Verification of physical location of material

A certified trader must be able to prove at which (certified) site the sustainable 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 on the place of receipt or place of dispatch must clearly indicate the site of the storage location (i.e. the address) where the sustainable materials was physically received or dispatched respectively. All relevant documents regarding the transport of the material have to be available and presented to the auditor during the audit that are required to ensure the traceability of the material. Paper trader may forward the Sustainability Declaration as received from their supplier of the sustainable material.

Traders and traders with storage 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. Traders with storage have to keep site-specific mass balances for every individual storage location used. Although (paper) traders have no physical contact to the sustainable material they must provide evidence about the transactions of the sustainable material (e.g. contracts, Sustainability Declarations).

Place of audit different from legal address

ISCC 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 storage an exception is possible in the case that 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 has to 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

In addition to the general requirements stated in Chapter 8.3.3 the following information has to be provided:

- List of all the storage facilities where sustainable material is stored, including names and addresses
- 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 have to be included
- Separate mass balances for every single storage facility, based on the documentation of the stock inventory as provided by the respective storage facility
- 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

Additional Requirements for Sustainability Declarations

Specific requirements for the trade of biomethane

In the case of biomethane that is traded via the gas grid, the producer feeding the biomethane into the grid issues a Sustainability Declaration to the recipient. If the recipient is a (paper) trader, i.e. not receiving the material physically, the trader can sell the respective batch of ISCC certified material and forward the respective Sustainability Declaration to the recipient, e.g. to the economic operator taking the biomethane (physically) out of the grid. The grid in this case is considered as transport and the transport of biomethane (e.g. via shippers) must be documented. It is not permitted for a (paper) trader to buy or sell a Sustainability Declaration for biomethane without the link to the respective amount of physical sustainable material. [21]

Statement: No multiple claiming

A trader of sustainable biomethane must sign a declaration to confirm that no multiple claiming of sustainability attributes that are assigned to specific batches of biomethane is taking place (see Chapter 8.4.8 for further information).

8.4.8 Processing Units

Changing physical or chemical properties

Processing units are facilities that convert input materials by changing their physical and/or chemical properties. Processing units can be oil mills, sugar mills, refineries, biodiesel and ethanol plants, biogas and biomethane plants, liquefaction (LNG) plants, HVO plants and others. 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 certificates the following types of processing units can be applied:

21 *Guarantees of origin that may be used by national platforms for the trade of biomethane or documents issued according to Art. 19 of the RED II must not be considered for trading and forwarding of sustainability characteristics in the framework of the certification of voluntary schemes to verify compliance with the sustainability and greenhouse gas emissions savings criteria of the RED II. According to Art. 2(12) of the RED II "'guarantee of origin' means an electronic document which has the sole function of providing evidence to a final customer that a given share or quantity of energy was produced from renewable sources"*

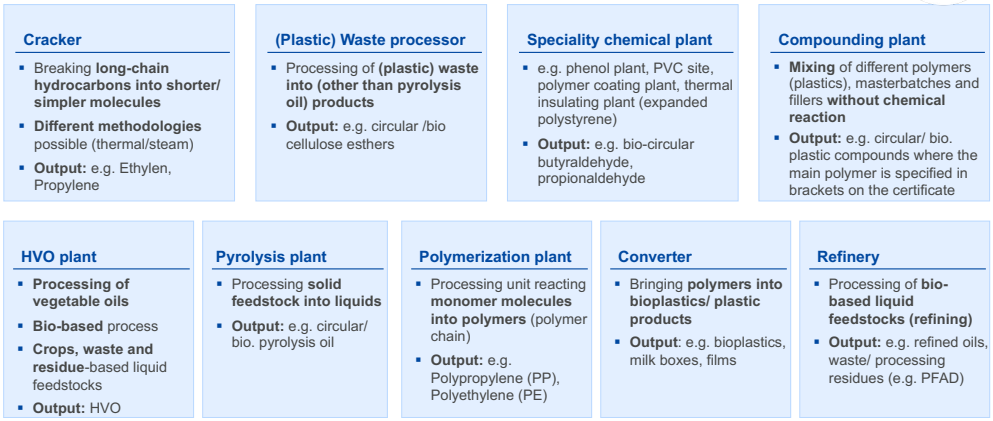


Figure 3: *Overview on typical processing units in chemical supply chains*

For specialty chemical plants it is possible to add a more specific definition on the certificate. At the downstream end of the supply chain the last unit to be certified under the scope of a processing unit is the converter that significantly changes the physical properties of their input by putting polymer granulates into different forms (film, bottles, tubs, etc.).

Mechanical recycling

If a material is treated with mechanical recycling, processing units shall have the scope “Mechanical Recycling Plant”.

Individual certification required

All processing units must be certified individually. Group certification or sampling is not allowed for processing units. The audit covers the relevant requirements of their management system, traceability, chain of custody and greenhouse gas emissions.

Collection points or storage facilities conducting a mechanical filtration or sedimentation (e.g. of used cooking oil to remove contaminants such as bones, cutlery, etc. or to reduce the water content of the used cooking oil) are not regarded as processing units. This applies, if both the raw material and the material after the mechanical treatment can be classified and declared with identical waste codes. Facilities that only blend biofuels, bioliquids or gaseous biofuels, such as ETBE or MTBE plants, are not regarded as processing units either. They are certified according to the audit requirements for storage facilities (see 3.4.7) with the exception that sampling and group certification is not possible for blending facilities.

Audit requirements

During the audit of a processing unit, the auditor must especially verify the traceability and plausibility of the incoming and outgoing amounts of sustainable material, as well as the conversion procedure applied within the processing unit. A part of the assessment of the conversion process is the determination of conversion factors, including a description of the relation between sustainable input and sustainable output. It is the responsibility of the processing unit to provide evidence to the auditor of which types of sustainable material 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 respective materials handled as sustainable by the processing unit will be published on the ISCC certificate.

Scope specific transactions

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

Tolling agreement

Processing units can operate under a so-called tolling agreement, i.e. an agreement or contract between the processing unit and the owner of the material to process the material. A fee ("toll") is agreed between both parties for the processing. In such cases the processing unit has two options for certification. The first option is the certification of the processing unit under its own name, i.e. the processing unit is the certificate holder. The second option is the certification of the processing unit under the name of the feedstock owner. In this case the feedstock owner is the certificate holder. The certificate has to include the legal name of the feedstock owner, the address of the processing unit and the information that the processing unit is used by the certificate holder under a tolling agreement. Under this option, the processing unit is not permitted to handle sustainable material under its own name as it is not the holder of the certificate.

Responsibilities and audit requirements

Under both options, the respective certificate holder is responsible for the fulfilment of all relevant ISCC requirements, including if applicable GHG determination, mass balances, Sustainability Declarations and the reporting of sustainable volumes to ISCC. Under option 1 the processing unit is responsible for determining if applicable the GHG emissions, keeping the mass balance and issuing the Sustainability Declarations to the recipient. Under option 2 the feedstock owner is responsible for determining if applicable the GHG emissions, keeping the mass balance and issuing the Sustainability Declaration to the recipient. The Sustainability Declaration must indicate that the place of dispatch of the sustainable material is the site of the processing unit. For both options, the certificates are issued based on a successful audit of the processing unit. Under the second option some aspects of the audit (e.g. mass balance, Sustainability Declarations) can be audited where those operations are conducted (e.g. at the site of the feedstock owner).

Audit requirements for Processing Units

The requirements as stated in Chapter 8.3.1 have to be fulfilled.

Additional Requirements for Sustainability Declarations for Processing Units

Specific requirements for final products

Sustainability Declarations for outgoing materials have to comply with the requirements as stated in Chapter 8.3.3. If the processing unit produces final biofuels, bioliquids or biomass fuels the following information has to be added to the Sustainability Declaration:

- In case of biofuel, bioliquid or biomass production, GHG emissions of the biofuel, bioliquid or biomass fuel in g CO2eq/MJ

- e_u: Emissions from the fuel in use: emissions of non-CO2 greenhouse gases (CH_4 and N_2O) need to be included for bioliquids and biomass fuels,
- e_l: Emissions from carbon stock changes caused by land-use change: if the bonus for severely degraded land was applied (eB= 29 g CO2eq/MJ) (see ISCC EU System Document 205 “GHG Emissions”)
- e_{sca}: Emissions savings from soil carbon accumulation via improved agricultural management: if the bonus for animal manure used as substrate is applied (see ISCC EU System Document 205 “GHG Emissions”)

Specific requirements for biogas plants

During the certification of a biogas plant, the weight, origin (address of the farm, point of origin), dry substance content and if applicable, value of GHG emissions stated by the production site must 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/plantations 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, the dry substance content as well as - if applicable - the assigned GHG value 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.

Specific requirements for biomethane plants

Biomethane plants receive biogas and process the biogas into biomethane. Biomethane plants must measure their energy consumption and - in case of GHG Add-on - take into account the methane slip for the GHG calculation. To do so, it is sufficient to measure the actual methane slip, provide the manufacturer warranty or refer to scientifically accepted standard values. Plants that employ a procedure using pressure must retreat their exhaust air thermally.

Documentation of biomethane yields

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 non-condensing heating value.

Reporting to authorities

As the final processing unit, the biomethane plant must issue a Sustainability Declaration to authorities for the biomethane fed into the natural gas grid. In the field of biomethane production, the "immediate" transmission of the Sustainability Declaration to the competent authority is not always possible, since the settlement between the commercial partners is carried out using the energy content of the biomethane (in kWh) and not in m^3 or kg. The energy content cannot be transmitted "immediately" since it is determined analytically and is generally only available a few weeks after the end of the month. Thus, the Sustainability Declarations should be issued at this point in time. The amounts declared on the Sustainability Declarations must match the amounts fed into and taken out of the gas grid (as verified by the competent authorities).

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 of sustainability attributes that are assigned to specific batches of biomethane is taking place. Sustainability attributes refer to any sustainability characteristic[22] of a given batch of biomethane and any statements such as "sustainable", "certified", "biobased", "renewable" or "emission saving" that are related to that batch. To avoid any multiple claiming (also referred to as multiple accounting, see Chapter 9.2), the sustainability attributes cannot be separated from the batch of biomethane and cannot be transferred, sold or otherwise used (e.g. in the framework of a national biogas register) 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 has to verify if a signed statement is in place.

Transport in the gas grid

Regarding the transport of the biomethane via the transmission and distribution infrastructure (i.e. gas grid), the following requirements must be taken into account for the certification of biomethane plants.

Requirements for gas grids

Renewable gases 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 must be certified. If within a country the competent authority organizes the national or regional physical transport of biogas/biomethane or, in cases where this is not possible due to missing infrastructure, operates an accounting system for biogas/ biomethane for gas grids that are not physically interconnected, the relevant gas grids can be considered as equivalent to one transport entity. This means the economic operator feeding biomethane into one regional/national grid and the economic operator taking out biomethane from

22 *See Chapter 9.2*

another regional/national grid can be considered as physically interconnected via the grid.

Biomethane injection and extraction

The quantity of biomethane fed into and taken out of the grid must be recorded and documented by the economic operator that inject and withdraw the biomethane respectively. They have to 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. The mass balancing period shall not exceed three months.

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 has to be certified as processing unit and the respective GHG emissions of the liquefaction have to be taken into account. In the mass balance, biomethane and Bio-LNG also have to be kept separately.

Bio-LNG terminal

A Bio-LNG terminal receives Bio-LNG via ship. The terminal fulfills the technical requirements for discharging the liquified gas from the ship and storing it in on-site tanks. In addition, the LNG terminal is connected to the gas grid and fulfills the technical requirements for injecting and extracting biomethane from the grid and for storing the gas in on-site tanks. The terminal also fulfills 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.

Final Product Refinement

Different types of companies after the converter exist that receive an ISCC certified material to manufacture a final product. Final product refinement (FPR) activities shall not substantially modify the certified material or product.

FPR Activities:

- Blowing or forming from a preform (if the process does not use a preform, the scope processing unit is necessary)
- Cutting
- Labelling
- Assembling
- Printing
- Sealing
- Filling

Audit requirements for final product refinement relate to conversion factors, mass balance calculations and traceability aspects.

8.4.9 Transport

Requirements for transport

Transport includes all modes of transportation such as road, rail, air, river or sea transport. The natural gas and electric power grids are also considered transport entities and can be used for the transportation of biomethane and renewable energy respectively. Transport is not subject to certification according to this standard. All relevant information regarding the transport of sustainable material (e.g. delivery documents, means and distance of transport, voluntary information of greenhouse gas emissions) are covered by the requirements for audits and Sustainability Declarations for the elements of the supply chain that arrange transportation of the sustainable material (see Chapters 8.4.1 – 8.4.8).

Documentation

In the case of transportation via ship the delivering companies or operational units have to provide, in addition to a "Bill of Lading", a document issued by an independent inspector which confirms the quantity of sustainable 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 has to be documented. It must be assured that transport documents can be related to the identity number of the purchasing contract for the sustainable product.

8.4.10 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.

8.5 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".[23] 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. 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 raw material and feedstock,

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

i.e. farms/plantations, points of origin for waste and processing residues, and storage or logistic facilities.

8.5.1 General Requirements

Homogenous groups

The certification as a group is only possible for homogenous entities, i.e. if the following criteria are met:

- The members are located in geographic proximity (e.g. in the same administrative region
- The climatic conditions for agricultural production are similar
- Similar production systems are applied
- The risk assessment has shown a similar risk exposure for the group members.

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 these conditions (e.g. due to considerably different production systems in size, nature or geography) 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 above. Furthermore, for each group the sampling approach as described below has to be applied separately. ISCC may specify materials and/or elements of the supply chain (e.g. points of origins) for which sampling cannot be applied.

Farms and plantations

Group certification for farms and plantations, to demonstrate compliance with the land-related sustainability criteria specified in ISCC EU System Documents 202-1 and 202-2, is only acceptable when the areas concerned are near each other (e.g. within the same administrative region) and have similar characteristics. These criteria are usually also met by the agricultural producers supplying 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 of points of origin under a central office is only allowed if the individual points of origin belong to a homogeneous group, share a harmonised management system, have similar processes and generate similar types of material (e.g. used cooking oil or animal fat). These criteria are usually met by points of origin supplying a collecting point. Therefore, based on an assessment of the criteria indicated above, the points of origin supplying a collecting point can usually be considered as one group.

Logistic network

Group certification of a group of storage facilities belonging to a logistic network is only allowed if the individual storage facilities belong to the same legal entity, share a harmonised management system and have similar processes. The principles of sampling can also be applied to cases, in which a certified economic operator rents external storage facilities from third parties

(warehouses, tanks, etc.). The rationale for applying the principles of sampling is that the storage facilities in such cases do not become the legal owner of the sustainable material. This means that they have no contractual agreements with the supplier or the recipient of the sustainable 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.

8.5.2 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 sustainable material relevant to ISCC
- Granting access to the group members' premises to conduct internal and external audits
- Commitment to the implementation of amendments and corrective actions.

8.5.3 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/plantations, 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 sustainable 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.

Management and mapping methods

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

8.5.4 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 standard. The internal audits should ensure individual group members' compliance with the certification criteria of the ISCC system and are an important part of the risk management of the group manager. The internal audit should cover the ISCC 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 a first certification, all individual group members and the group as a whole must be subject to an internal audit to verify compliance with ISCC requirements and 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 system e.g. by participating in ISCC Basic Training & 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 audit results and of possible inputs from a third party.

8.5.5 External Audit

Annual 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 audit. The sample size of group members to be audited must be calculated by the external auditor and is driven by the risk factor determined by the external auditor during the risk assessment. The external auditor is responsible for selecting and auditing individual group members within the scope of the sample.

Calculating the Sample Size:

Calculation formula

The correct definition of the sample size (s) to be audited for compliance is the basis for a consistent and reliable group certification process. In order to determine the sample size, the total number of individual group members (n) relevant for sampling and the risk factor (r) determined during the risk assessment must be taken into account. 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.

Minimum sample size

The minimum sample size is the square root of the total number of group members (√n) or 10% of the total number of group members (n) whichever number is higher

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.

Rounding up

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).

Certified entities

Biomass producers, points of origin or storage facilities that are certified individually or as part of a certified group under a (different) central office, or logistic centre, may not be considered for the total number of individual group members (n).

This formula ensures a control density of the group, following in principle the control requirements set by the European Commission in the framework of the EU Cross Compliance system[24].

Self-assessment and self-declaration

For farms and plantations which are participating in group certification the total number of group members (n) is composed of all farms and plantations 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 sustainable by the farm/plantation in the previous certification period.

Points of origin

Points of origin (producers of waste or processing residues) participating in group certification must sign the respective self-declaration for compliance with the ISCC 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

24 *Art. 74(2) of Regulation (EU) No. 1306/2013 on the financing, management and monitoring of the common agricultural policy*

of the number of producers that generate a relevant amount of waste and residues (see Chapter 8.4.5) 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 sustainable by the point of origin in the previous certification period.

Dependent storage facilities

The principles for calculating the sample size are equally applied to dependent storage facilities (rented by certified System Users) if sampling is applied.

Selecting the Sample:

Selecting group members for audit

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[25]:

a Factors related to the type and size:

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

b Factors related to specific characteristics:

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

c 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:

Consequences of non-compliance

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 ISCC EU System Document 201 "System Basics"). In the case that the external auditor detects that one or more group members from the sample are non-complaint with ISCC requirements, or one or more group members refuse to participate in the audit, 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)

25 *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)*

deviation from this rule may be considered in consultation with and after approval by ISCC. “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. If in the increased sample, further group members are detected not fulfilling the ISCC requirements, 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. Group members that have been excluded may only participate in ISCC again once they have successfully passed an individual audit.

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.

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

Definition LRD

LRDs are own legal entities and are active in certain countries (sales regions) for corporate groups having a business principal that acts as central trader and is in charge of all the purchasing and selling operations (a.o.). Business principals control a centralized Enterprise Resource System (ERP) but do not receive physical ownership of sustainable material. The sustainable material is sold to the paper traders in all relevant sales markets who then sell the sustainable product to a third party in the country. For such setups, LRD certification is possible if all required documentation is available at the business principal. A list of all paper traders belonging to the group must be verified in the audit and provided to ISCC together with other relevant audit documentation.

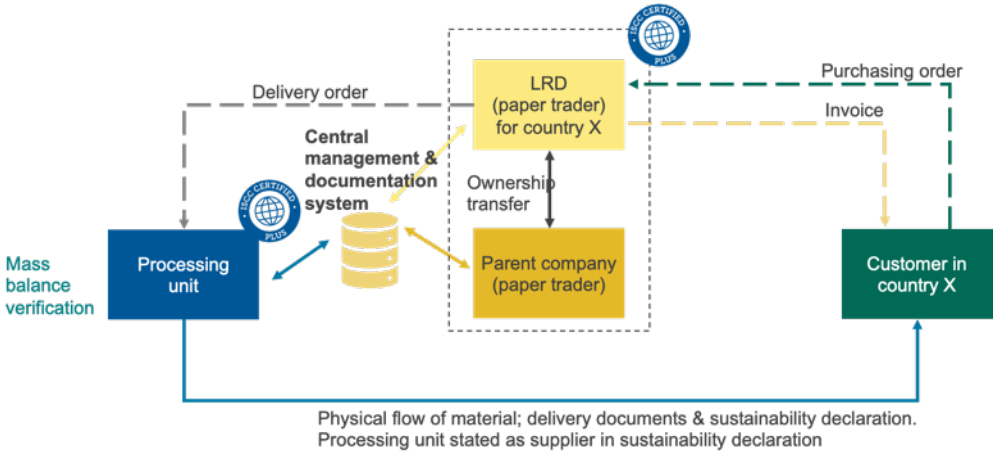


Figure 4: Sales process flow for the Limited Risk Distributors (LRDs)

Specifications for LRDs:

Preconditions

> must be part of the corporate group (certificate holder has at least 50% equity share). Branches of the same legal entity at a different address can also be considered as LRDs

- publicly available information that links traders to the corporate group (e.g. annual financial reports)
- must be part of the central material flow documentation system of the corporate group in a way that all relevant data can be approached from the certificate holder headquarter
- only act as a paper trader, meaning they buy and sell the certified material in the central system while the physical flow of the material is straight from the production unit to the customer. The processing unit issues the Sustainability Declaration to the recipient of the physical material respectively (the LRD does not issue any delivery documents and/or Sustainability Declarations)
- only sells products produced by a processing unit that is part of the corporate group and invoices these upon selling
- must not be active for other companies, i.e. trader is contracted as sole provider of distribution for the manufacturing company

Audit requirements

The LRD does not need to be audited separately in case all relevant data can be accessed from the business principal's system where the audit takes places. Audit requirements and required documentation remain according to all other relevant ISCC Documents (including ISCC EU 201, 204) so that during the audit of the business principal it is a.o. verified that deliveries of sustainable material from the processing units are balanced with the sum of sales of sustainable material by all entities involved. The business principal needs to keep a list of all LRDs and document all purchases and sales of ISCC sustainable material.

There must be a link between the LRD invoicing and the dispatch of product at the processing unit. It needs to be ensured that the customers of the sustainable material are aware under which ISCC certificate the LRD is covered in order to be able to check the certificate's validity on the ISCC homepage. For this, the verified list can be provided to clients of LRDs. In case additional LRDs are added between two ISCC PLUS audits, this needs to be reported to the CB and the updated list needs to be provided to ISCC by the CB.

8.5.7 Group Certification Approach for Final Product Refinement Activities

The group certification approach for Final Product Refinement (FPR) activities (see Chapter 8.4.8) is applicable for certificate holders that outsource FPR activities to various sites in different locations. These sites can either belong to the same legal entity as the certificate holder or to an external company that provides a contracted service for the certificate holder. As a precondition for the FPR group certification, the legal ownership of the certified material must always remain with the certificate holder (who will be called the FPR group head). The FPR group head shall always be certified under the scope FPR. In case a processing unit is outsourcing FPR activities, the FPR scope must be

added to the certificate. The FPR group head (= owner of material) shall be responsible for the fulfilment of all relevant ISCC requirements, including the conduction of mass balances, issuing sustainability declarations and the reporting of sustainable volumes to ISCC. Audit requirements and required documentation remain according to all other relevant ISCC documents (e.g. ISCC EU 201, 204). All the outsourced activities shall always be recorded (e.g. by a centralized ERP system of the FPR group head) and kept in a list that must be provided to the ISCC head office. The certificate issued by the CB must indicate the group members on the annex of the certificate. In a set-up where the same material or product is received in several sites but with differing shares of certified material, it is possible to make an average claim on the final product (e.g., in B2C communication, marketing, on-product claim) if verifiable by the CB (e.g. via a centralized ERP system).

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 has to 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 8.5.5. 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)

- All group members must be listed in the annex of the certificate of the group head

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

Requirements of the self-declaration for outsourcing:

- 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

9 Requirements for Chain of Custody

9.1 Chain of Custody Methods

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). This provides credibility that a given batch of material or product is associated with a set of specific characteristics (e.g. regarding sustainability) and that the information on the specific characteristics linked to the material or product is transferred, monitored and controlled.

Assignment of sustainability characteristics

The traceability and evidence of the sustainability characteristics of materials are achieved through the application of the traceability measures as described in Chapter 8 and the application of an eligible chain of custody method. This also ensures that the sustainability characteristics remain assigned to batches of material, and that the amount of material withdrawn at any stage of the supply chain does not exceed the amount supplied. The term 'batch' describes a specific amount of material with the same sustainability characteristics. In the following the term 'batch' will be uniformly used.

This chapter provides a detailed description of the methodologies for the chain of custody options[26] that can be applied according to the ISCC PLUS standard: physical segregation, mass balance and controlled blending.

Physical segregation is the strictest method and means that materials with different properties are kept physically separated from each other on their journey through the supply chain. Two types of physical segregation are possible:

- Identity preservation or Hard IP: the physical mix of non-sustainable and sustainable material is not allowed. Furthermore, sustainable materials with different sustainability characteristics (e.g. origin of raw material, GHG emissions etc.) must be kept physically separate throughout the supply chain
- Bulk commodity or Soft IP: the physical mix of non-sustainable and sustainable material is not allowed. The physical mix of sustainable materials with differing sustainability characteristics is allowed throughout the supply chain

Controlled Blending

Controlled blending refers to a planned blending regime resulting in constant and verifiable content of bio, circular and renewable feedstock in the final product. Blending is obtained by mixing the feedstocks/ products without a chemical or biological reaction.

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

Mass balance

Mass balance allows the physical mix of sustainable materials with different sustainability and – if applicable – GHG emissions saving characteristics (in the following referred to as sustainability characteristics) and non-sustainable materials. The information about the sustainability characteristics and the size of the batches with differing sustainability and – if applicable – GHG emissions saving characteristics has to remain assigned to the mixture. The mass balance also allows batches of raw material with differing energy content to be mixed for the purpose of further processing, given that the size of the batches is adjusted according to their energy content. The exact amounts and sustainability characteristics of sustainable material that leaves any element along the supply chain must be documented and must never exceed the amount of sustainable material that enters the respective element.

Book and claim

The chain of custody option 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 actual material flow can be provided.

Inventory

Inventory (or stock) is the physical amount of sustainable and non-sustainable material that is kept on-site by the economic operator in storage facilities. The inventory is measured or metered. It is the basis for calculating a mass balance, for determining credits at the end of a mass balance period and for verifying the plausibility of amounts of sustainable and non-sustainable material.

9.2 General Requirements

Separate bookkeeping and relevant sustainability characteristics

The certified party must split the quantity bookkeeping for all materials with different sets of sustainability characteristics even if the chain of custody method allows for the physical mixing of material. The following sustainability characteristics have to be distinguished in the quantity bookkeeping (see also Chapter 8.3.3):

- Raw material category
- Chain of custody option (if multiple options are applied)
- Type of raw material (optional) (for example, rapeseed, soybean, UCO)
- Country of origin of the raw material (optional)
- Information on GHG emissions (optional)
- Waste status (post-/pre-consumer/mixed/unspecified)
- Different specifications of the material (if applicable)
- For biogas supply chains: Statement if for the production of the biogas incentives/subsidies were received and if yes, type of the support scheme

If materials are processed or losses of material occur due to internal company processes, the appropriate conversion factors shall be used to adjust the size of batches accordingly.

Split up of mixture

If a mixture is split up, a set of sustainability characteristics can be assigned to any batch that is taken out. The sum of all batches withdrawn from the mixture must have the same sustainability characteristics in equal quantities, as the sum of all the batches added to the mixture.

Within the quantity 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. Batches of input materials cannot be merged within the bookkeeping if they have different sustainability characteristics or none or are handled under different chain of custody options.

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 sustainable 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 should be contacted (see also Chapter 8.3.2).

No multiple accounting allowed

The sustainability characteristics of a specific amount of sustainable material can only be used once and for one application only. So-called “multiple accounting” is not allowed under ISCC. 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.

No multiple accounting of GHG savings

The multiple accounting of individual sustainability characteristics, such as the GHG savings, is also prohibited. Example: If a company has installed methane capture devices which result in higher GHG savings of their output, these GHG savings may be accounted under one framework, i.e. under ISCC PLUS issuing a Sustainability Declaration. In this scenario the company would not be allowed to use the GHG savings in the framework of other systems or regimes as well (e.g. clean development mechanism, CDM). Accounting of GHG savings related to one batch of material under ISCC and once again under another scheme or regime must not take place.

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

In order 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, mass balances and other documentation of the schemes used. The economic operators have to declare the names of all schemes they participate in and have to provide the auditor with all relevant information and documentation on the schemes used (see also ISCC EU System Document 201 “System Basics”)

Information system

Each economic operator has to operate an information system which is able to keep track of the amounts of sustainable 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 boundaries

Periodical boundaries define the timeframe in which the input and output of materials with specific sustainability characteristics must be balanced. The maximum timeframe (period) is three months. Appropriate arrangements are necessary to ensure that the balance is respected.

Spatial boundaries

The spatial boundary defines the location (spatial entity) for which the chain of custody requirements has to be applied. Mass balances, as well as both segregation methods are at least site specific. This means that they have to refer to one geographical location with precise boundaries (site of operation) within which materials can be mixed, for example in a container, processing or logistical facility. A mass balance system can also be operated for a transmission and distribution infrastructure (e.g. gas grid)). If more than one legal entity operates at one location each legal entity is required to operate its own quantity bookkeeping (e.g. mass balance).

Transfer of sustainability characteristics

If biogenic and fossil material are mixed in a joint conversion process (co-processed) or are stored jointly in the same physical compartment (i.e. one individual tank or a pipeline) then the equivalent to the amount of the biogenic input can be claimed as sustainable. The same applies for biogenic materials having different physical phases or states as these states are determined by different energy levels. Sustainability characteristics can therefore only be transferred if these biogenic materials with different states are stored in the same physical compartment or are jointly processed. For example, the transfer of the sustainability characteristics from biomethane to bio-LNG is only possible if the respective quantities share the same physical storage facility or pipeline or are jointly processed. If sustainability characteristics were transferred from one material to another the CB has to verify during the audit that this was not applied to materials with different energy states which were not co-processed or physically stored in the same physical compartment.

9.2.1 Conversion Factors

Changes in quantities

Conversion factor (CF) is used to account for the losses from the processing of sustainable materials. Conversion factors are applied to determine the

output of a specific product based on the amount of a specific input material that entered a processing step. Conversion factors have to be provided by all the elements in the chain of custody where changes in quantities occur and must be applied when there is change in quantity of a specific material due to processing, irrespective of the chosen chain of custody option. They must be clearly documented and are subject to verification during the audit.

The determination of the conversion factors must be conducted based on the operational data of the processing unit. It is not allowed to determine the conversion factors based on theoretical data. Each plant (e.g. a cracker, a polymerization plant), which is combined under one certificate at one site, has its own conversion factor. Depending on which process steps are used to manufacture a product or which plants are passed through, the corresponding conversion factors must be considered. Conversion factors do not need to be calculated for each single product. “Product groups” 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 data for the most relevant product from this group or via determining a “weighted” average. Precondition for the use of simplified conversion factors is that a transparent description of the defined product groups exists and that there is a clear link to respective data in the documentation system which must be provided during the audit to the third-party verifier.

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

CF (%) = Ao/Ai * 100

CF: ***C****onversion* ***F****actor*
Ao: ***A****mount of* ***o****utput yielded by the internal process based on input Ai*
Ai: ***A****mount of the process* ***i****nput material*

Adjustment of sustainability characteristics

The allocation of sustainability and – if applicable – GHG emission characteristics to outgoing batches is limited by the conversion factor relevant for the supply route of the sustainable material.

9.3 Physical Segregation

9.3.1 General Requirements

Physical segregation is the chain of custody method under which sustainable and non-sustainable material is kept physically separated.

Hard and Soft IP

Two levels of physical segregation can be applied: the segregation of sustainable from non-sustainable material (Bulk Commodity or Soft IP) or the segregation of all batches of sustainable material with different sustainability characteristics (Identity Preserved or Hard IP).

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

9.3.2 Identity Preserved or Hard IP

Physical segregation of all batches

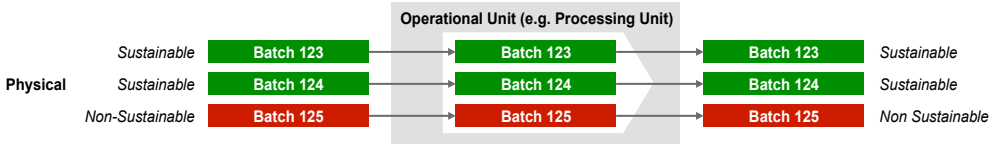
Under Hard IP sustainable batches of material can be physically identified throughout the entire production and distribution process. The physical separation applies to sustainable material from different types of raw materials and with different other sustainability characteristics.

Identity preserved

Since the mixing of sustainable material with different characteristics is not allowed, the identity of the material between the quantity bookkeeping and the physical product is preserved. 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 (also see Figure 5 (for simplification a conversion factor of one (CF=1) is applied), 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 5: Physical Segregation of all Batches (CF=1)

Figure 6 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 both stated on the incoming and outgoing Sustainability Declarations, and thus the sustainability characteristics as stated in the bookkeeping matches with the characteristics of the physical batches.

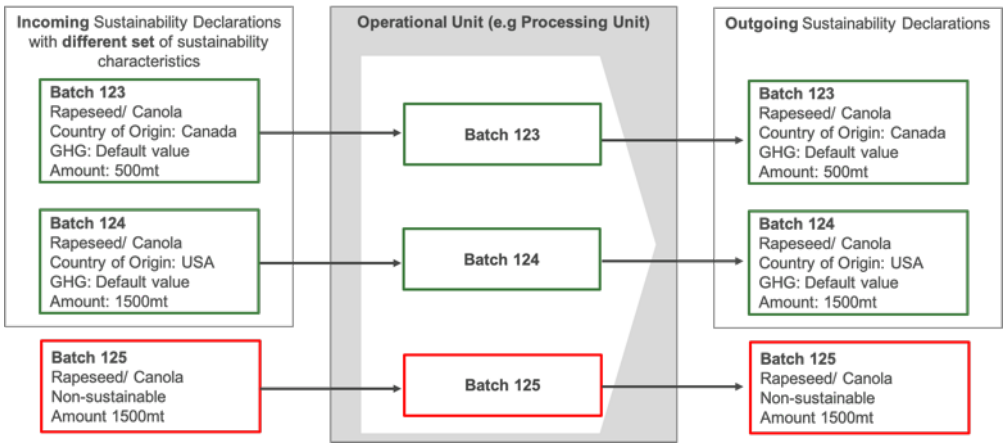


Figure 6: Assigning Sustainability Characteristics to outgoing Batches via Sustainability Declarations (CF =1)

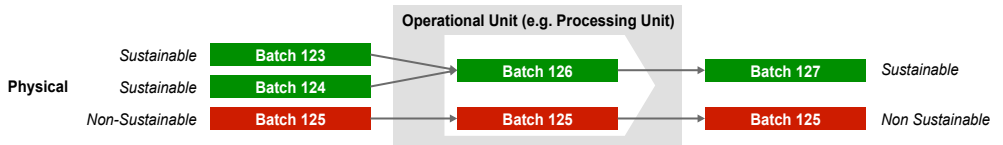
With respect to the balance of the system, at no point in time can more material with specific sustainability characteristics be withdrawn than the equivalent material that has been added, e.g. the outgoing batch 123 shall not exceed 500 tons. The outgoing batches can be split into sub-batches with different 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 3 sub-batches of 100, 150 and 250 tons with the same sustainability characteristics, in the case of the conversion factor being 1).

9.3.3 Bulk Commodity or Soft IP

Sustainable material can be mixed

The Soft IP option requires the physical separation of the sustainable material and non-sustainable material. Batches of sustainable material can be physically mixed even if sustainability characteristics are different (see Figure 7). 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, sustainable batches with different sustainability characteristics have to be kept separated. Only batches with similar sustainability characteristics 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 7: Physical Segregation of Sustainable and Non-Sustainable Batches (CF=1)

If batches 123 and 124 have different sustainability characteristics, e.g. country of origin of the raw material, the Sustainability Declarations of the

outgoing batches 127 and 128 have to contain the same sustainability characteristics as the incoming sustainability characteristics of batches 123 and 124 and cannot exceed the quantity of 500 tons or respectively 1500 tons, assumed that the conversion factor being 1 (Figure 8).

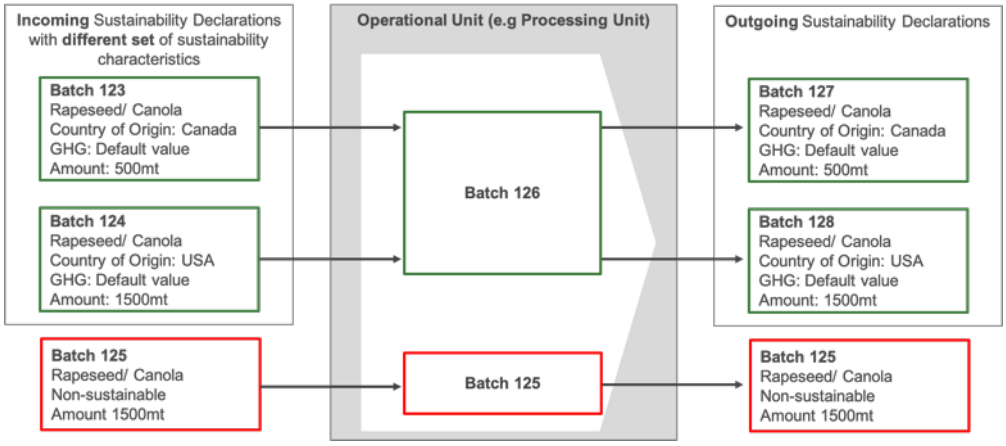


Figure 8: Assigning Sustainability Characteristics to Outgoing Batches via Sustainability Declarations (CF=1)

If a physical mixture of sustainable material is split up, the sustainability characteristics from the bookkeeping can be assigned to any physical batch of sustainable 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 sustainable material.

With respect to the balance of the system at no point in time can more material with specific sustainable characteristics be withdrawn than the equivalent material has been added (e.g. the outgoing batch 127 in Figure 8 shall not exceed 500 tons, (assuming a conversion factor of 1).

9.4 Mass Balance

9.4.1 General Requirements

Mass balance

Under the mass balance system, the sustainability characteristics remain assigned to batches of material on a bookkeeping basis while the physical mixing of material with different sustainability characteristics and the mixing of sustainable and non-sustainable material is allowed. Any kind of mass balance operation and calculation shall only be related to sustainable material. A mass balance always refers to the physical inputs, outputs and inventory/stock (sustainable and non-sustainable) of a specific product. The allocation of sustainability characteristics to outgoing batches is limited by the conversion factor relevant for the supply route related to the sustainable material.

Information remain assigned to mixture

Due to the physical mixing, the mixture loses its individual properties. The sustainability and – if applicable – GHG emissions saving characteristics of materials can therefore only be determined via the bookkeeping. This requires the calculation of mass balances and the verification of the mass balance calculation with respect to the chosen period for balancing. The mass balance has to contain information concerning all the sustainability and – if applicable – GHG emissions saving characteristics and the sizes of the batches with the different sustainability characteristics that are mixed. The information has to remain assigned to the mixture. The sum of all batches that are withdrawn from the mixture has to have the same sustainability characteristics in the same quantities as the sum of all the batches that were added to the mixture. This balance has to be achieved over an appropriate period of time.

Site specific mass balance

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

Scope specific mass balance

If an economic operator is certified under multiple scopes the mass balance should be specific to the certified scopes. “Scopes” refer to market activities, e.g. collecting, trading and processing sustainable material (for further explanation please see ISCC System Document 102). 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. 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 sustainable 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 has to be available for verification during the audit.

Material specific

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

Physical link required

Sustainable material can only be included in a mass balance if it is physically received at the site of the economic operator covered by certification, i.e. a physical link between the mass balance and the material is required. It is not possible to add sustainable material to a mass balance without the physical intake of the material at the site for which the mass balance is kept (e.g. no “jetty kissing” allowed).

Sustainability characteristics

The same sustainability characteristics as provided on Sustainability Declarations have to be distinguished in the bookkeeping (see Chapter 8.3).

Mass balance period

For the mass balance calculation, a timeframe must be defined by the end of which the total mass of incoming and outgoing batches with corresponding sustainability characteristics has to be balanced. Under ISCC, the maximum timeframe for a mass balance calculation is three months. There is an exception for producers of agricultural biomass (farms/plantations) or forest biomass and first gathering points sourcing only agricultural biomass or forest biomass. For those economic operators the 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 deficit within the mass balance period (i.e. it is not possible to sell more material as sustainable than is available in the mass balance). In all cases appropriate arrangements are necessary to ensure that the balance is adhered to.

Participants in the ISCC scheme 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 sustainable material occurs, mass balances have to 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 will 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 calculation has to 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) (see Chapter 9.4.2)
- Amount of credits from previous period (if available) (see Chapter 9.4.2)

> Conversion factor (if applicable)

Downgrading of material

It is possible to downgrade sustainable material with a higher sustainability category (i.e. add-ons were covered by certification), for example to compensate a negative mass balance of sustainable material with a lower sustainability category (i.e. less or no add-ons applied) (see Figure 9). However, this is only possible if all other sustainability characteristics are identical. If an ISCC certified system user receives sustainable material forwarded under the chain of custody option “mass balance” it is not possible to switch to the chain of custody “physical segregation” for the same material afterwards.

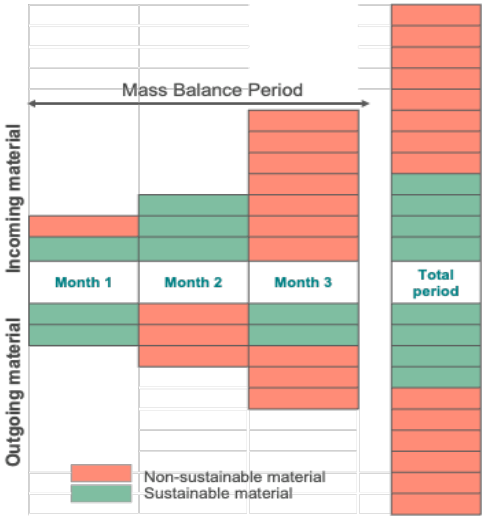


Figure 9: *Negative balance of sustainable material can be balanced by sustainable material with a higher sustainability category (all other sustainability characteristics have to be identical)*

Mass balance for the gas grid possible

The mass balance approach can also be applied to gas transmission and distribution infrastructure (i.e. gas grid). Renewable gases, such as biomethane can be mixed in the gas grid if the infrastructure is interconnected, i.e. if the economic operator feeding the renewable gas into the grid and the economic operator taking the gas out of the grid are physically interconnected through the grid. Both economic operators have to document the injection and withdrawal respectively, and both must be certified under ISCC.

Mass balance available to auditor prior to audit

The economic operator has to submit all mass balances to the certification body conducting the audit prior to the audit. This applies to all mass balances relevant for the certification of the economic operator, i.e. every site (external storage facility or dependent collecting point) covered by the certificate. The audit cannot be started if the mass balances are not provided to the auditor within an appropriate time prior to the audit (i.e. the auditor should have a reasonable amount of time to be able to get a detailed understanding of the mass balance). In case of an initial (first) audit the economic operator has to set up a mass balance system which is checked by the auditor during the audit. See Chapter 9.4.9 for a detailed overview of the requirements for mass balance audits.

Access to all mass balances

If a company is operating mass balances under different certification schemes the auditor has to be able to access all mass balances for all certification schemes that the company is using.

9.4.2 Credit Transfer

Credit

If more sustainable material is received than dispatched within one mass balance period, the surplus of sustainable material in the bookkeeping is called “credit”. 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 (sustainable and unsustainable) 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.

Negative mass balance not allowed

A negative mass balance is not permitted under ISCC. A negative mass balance occurs if less sustainable material has been received than dispatched if at the end of a mass balance period (including existing inventory of sustainable material that was available 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.

Mass balance verification

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

B = (A + a)*CF + b

With:

B - C = 0 **Balanced bookkeeping (no credits available)**

B - C > 0: **Credits (positive balance)**

B - C < 0: **Negative balance (not allowed)**

A: *Incoming sustainable material for the entire mass balance period*

C: *Outgoing sustainable material for the entire mass balance period (i.e. material that was physically dispatched)*

B: *Total amount of available sustainable material for the entire period (= amount of material that can potentially be dispatched as sustainable during the mass balance period)*

a: *Inventory of sustainable (input) material at the beginning of the period*

b: *Inventory of sustainable (output) material at the beginning of the period (applicable for processing units)*

CF: *Average conversion factor during the mass balance period*

This calculation has to be based on the actual amount of incoming sustainable material and the inventory of sustainable input material available during the respective mass balance period.

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). Figure 10 provides an overview of the applicable coefficients to verify a mass balance for the example of a processing unit.

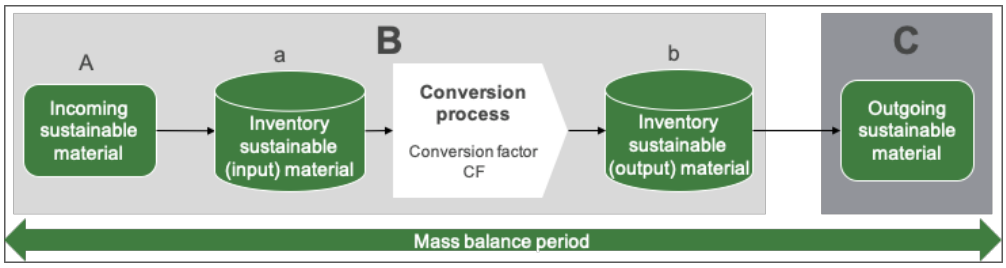


Figure 10: Overview of coefficients to verify a mass balance. Example Processing Unit

Credit transfer between materials

Transferring credits between materials is only allowed for identical products or product groups[27]. 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.

Multi-site credit transfer

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[28] 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
- Certificates can be issued by differing certification bodies if full documentation is available

27 *Please refer to the ISCC List of Eligible Materials*
28 *Not applicable for raw materials and audit scopes farm/plantation, forest sourcing area, FGP, PoO, CP, FPR*

Multi-site-credit transfer for joint ventures

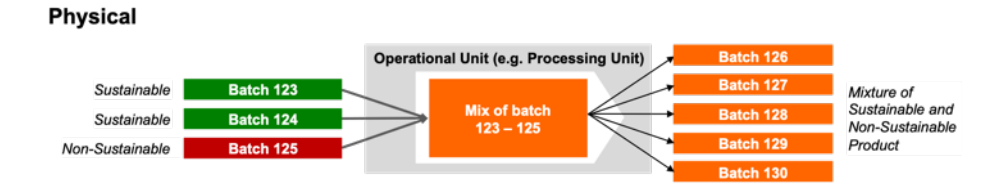
Under ISCC PLUS it is also possible to transfer credits between sites that are part of the same or corporate group or joint venture. A corporate group is defined as a number of consolidated legal entities guided by a parent company. Precondition for the latter case is that the company transferring credits 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 Compliant” and the other sustainable characteristics are identical. However, it is not possible to transfer credits from ISCC PLUS to ISCC EU mass balances.

9.4.3 Mass Balance Bookkeeping

Under the mass balance method, batches of sustainable material (which may have different sustainability characteristics) and non-sustainable material can be physically mixed within internal company processes (see Figure 11). Within a mass balance period, batches of sustainable material with the same sustainability characteristics (including raw materials, country of origin, GHG emissions, etc.) can be arbitrarily merged or split within the bookkeeping as long as the sum of all batches that are withdrawn from the mixture have the same sustainability characteristics in the same quantities as were added to the mixture.

In the example given in figure 11, batches 129 and 130 are declared as non-sustainable and the outgoing batches 126, 127 and 128 are declared as sustainable in the bookkeeping although all batches are physically a mixture of the sustainable and non-sustainable input materials.



Bookkeeping

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

Company Internal Process		
Batch	Kind	Amount (t)
123+124	Sustainable	2000
125	Non-sustainable	1000
Total		3000

Output		
Batch	Kind	Amount (t)
126	Sustainable	200
127	Sustainable	800
128	Sustainable	1000
129	Non-Sustainable	500
130	Non-Sustainable	500
Total		3000

Figure 11: Quantity Credit Methodology (CF=1)

Batches which have the same sustainability characteristics apart from their GHG emission values can be aggregated (see Chapter 11.4). If, in the example of Figure 12, the GHG values of batches 123, 124 and 125 can be aggregated and could be applied to all outgoing batches 127-131 (assuming that their other sustainability characteristics are identical).

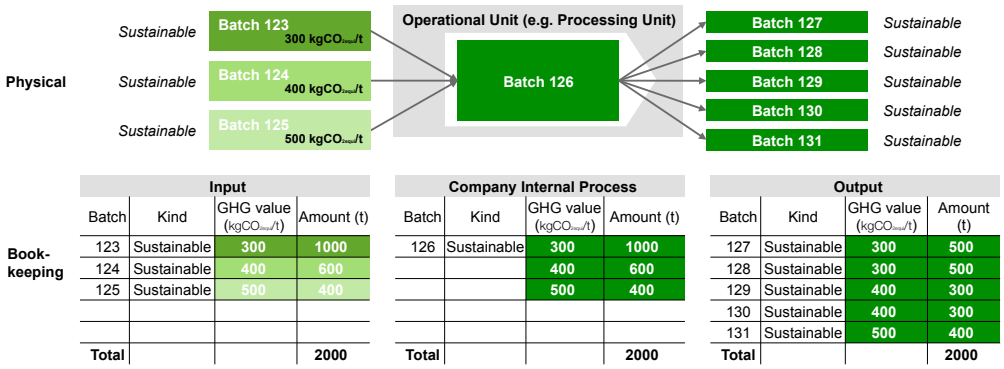


Figure 12: Bookkeeping of Batches with Different GHG Values (CF=1)

Under the mass balance approach, sustainability characteristics have to be allocated to batches of outgoing material, i.e. what sustainability information is included on Sustainability Declarations for outgoing material.

For intermediate products that are physically mixed separate Sustainability Declarations have to be issued to reflect the share of materials in the mix

9.4.4 Mass Balancing Approach

Calculation of conversion factors for mass balance approach

For attributing the correct amount of sustainable output, the sustainable share must be calculated. The sustainable share is the amount of sustainable input material multiplied with the respective conversion factor of the processing unit. The conversion factor is the amount of all outputs divided by the amount of all inputs. For the determination of the conversion factor, all process outputs (products) as well as reactants (e.g. water) should be taken into account. Process losses (e.g. gases to flare) are deducted from the conversion factor. For mass balance calculations the conversion factor must reflect the production during the respective mass balance period. If applicable, for GHG calculations the yearly average of the conversion factor may be applied.

There must be an equivalence between the “ISCC Compliant” input and the respectively claimed output (on a mass balance basis). If the final product does not achieve 100% “ISCC Compliant” equivalence, the percentage must be stated (e.g. on- and/or off-product). Equivalence means that the respective amount of input to output has been sourced.

Options for mass balancing under ISCC PLUS

ISCC PLUS offers different options to conduct the mass balancing for a certified processing unit and to determine the sustainable output (see Figure 13).

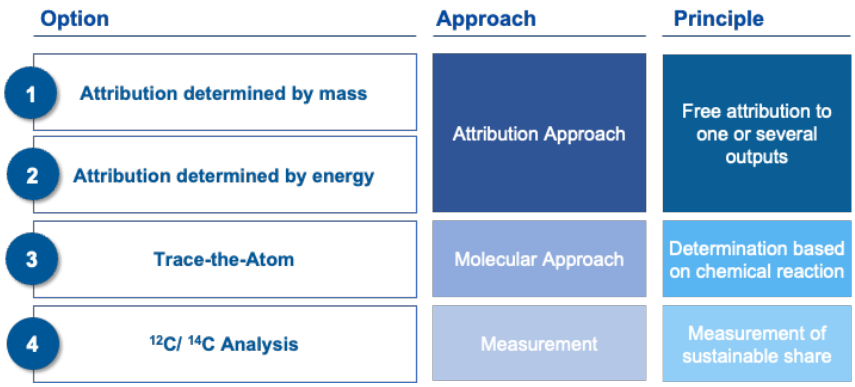


Figure 13: Overview on mass balancing options under ISCC PLUS

Mass balancing based on input, output and losses

The sustainable output can be determined using an "attribution approach" (Option 1 and 2, see Figure 13). In this case, the site of the processing unit defines the system boundaries. In case two or more processing units that can be clearly separated from each other are located at the same site (one ISCC PLUS certificate), the system boundaries for the attribution from input to output can be separately defined for each certified processing unit. The specific processes (e.g. chemical reactions) within the system boundaries of the respective processing unit are not taken into account for the determination of the sustainable share (for limitations of mass balancing see below and Figure 15). Thus, the focus of the analysis is exclusively on the relevant input, output and losses of the process. In order to calculate the sustainable share, the amount of sustainable input, output and the losses can be described based on their mass (option 1) or based on their energetic value (option 2).

Certified free attribution and certified energy excluded attribution for mass balancing

For the mass balancing options 1 (attribution determined by mass) and 2 (attribution determined by energy) two supplementing options can be applied: "certified free attribution" and "certified energy excluded attribution". The option "certified free attribution" allows the free attribution for the determination of the sustainable share of input material to the output material. This means that the sustainable share can be attributed to one or several output materials independent of the usage of the outputs. However, as described above, process losses[29] need to be considered for the calculation of the conversion factor.

In case of the "certified energy excluded attribution" option, the part of energetically used outputs which are derived from the sustainable input material cannot be attributed to other output materials.[30, 31] Energetically used outputs are outputs that can be consumed internally (to provide energy for the

29 *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).*
30 *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)).*
31 *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.*

process, “auto-consumption”) and as well as sold (to be used at downstream operators for energetic purposes). To calculate the part of the energetically used outputs, which are derived from sustainable input material, an attribution of the sustainable input material to energetically used outputs according to real yields or input shares (on amass or energetic basis) is mandatory. This sustainable share of energetically used outputs cannot be re-attributed to material outputs[32]. The remaining sustainable share can be attributed freely among all material outputs taking into accounts the limitation rules for attribution. Figure 14 depicts a comparison of the two supplementing attribution approaches with exemplary numbers.

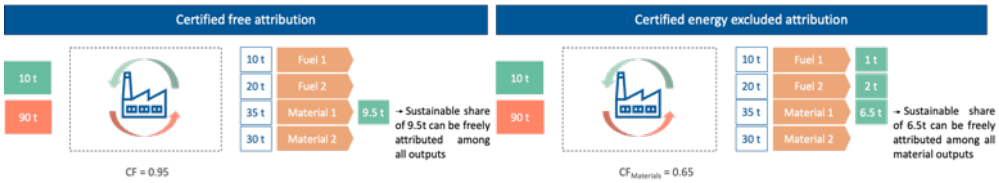


Figure 14: *Exemplary numbers for the two different supplementing attributions options for mass balancing options 1 and 2. In the example the attribution is determined by mass (mass balancing option 1).*

Mass balancing based on chemical reactions

Next to the above outlined attribution approaches, also the **Trace-the-Atom option** (option 3, see Figure 13) can be used to determine the conversion factor and sustainable share. The equation of the chemical reaction used for the production of the sustainable product is followed. Consequently, the conversion factor is based on the share of (carbon) atoms derived from the sustainable input in relation to all (carbon) atoms that are part of the output molecule. Operational data of the processing unit must be used to take process losses into account and determine the sustainable output.

By applying one of the three options described above, claims cannot include reference to the physical content of the output.

Mass balancing based on bio-content measurements

Using isotope measurements of the output, the actual present share of the bio-based feedstocks can be determined in the final product. A **$^{12}C/\ ^{14}C$ isotope measurement** (option 4, see Figure 13) can be used to determine the bio-based share in a product. In contrast to the options of calculating the process yield based on an analysis of in- and output materials, this option measures the “physical” bio-content in a product. Here, in contrast to options 1-3, claims on the bio-based content can be made because it can be proven that the output physically contains a certain amount of sustainable input. Further information on accepted methods, measurement and sampling regimes can be found in ISCC Guidance Document 203-01 “Co-Processing”.

Limitations for mass balancing

For all of the above-mentioned options eligible under ISCC PLUS, the attribution/ determination is limited to:

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

> process outputs that can potentially contain parts (molecules/atoms) of the sustainable input after its processing/chemical reaction (→ no attribution to output, which cannot (chemically/ technically) include the sustainable input).

> physical output (sustainable and non-sustainable) produced in the respective mass balance period (→ no attribution to a quantity of output, which is not produced at the site within a mass balance period).

Site specific

Mass balancing must be site specific.

Process feasibility

It must be chemically/technically possible, that the input molecular/atoms are included in the attributed output.

Operational data

The conversion factor is determined based on operational data.

Physical output

Attributed sustainable output cannot be higher than the physical output in a mass balance period.

Transparency

Information on the used option for MB (attribution) and on multi-site Credit Transfer must be provided via sustainability declaration.

Figure 15: *Basic conditions for the ISCC PLUS mass balancing approach*

Example calculations

a) Attribution determined by mass

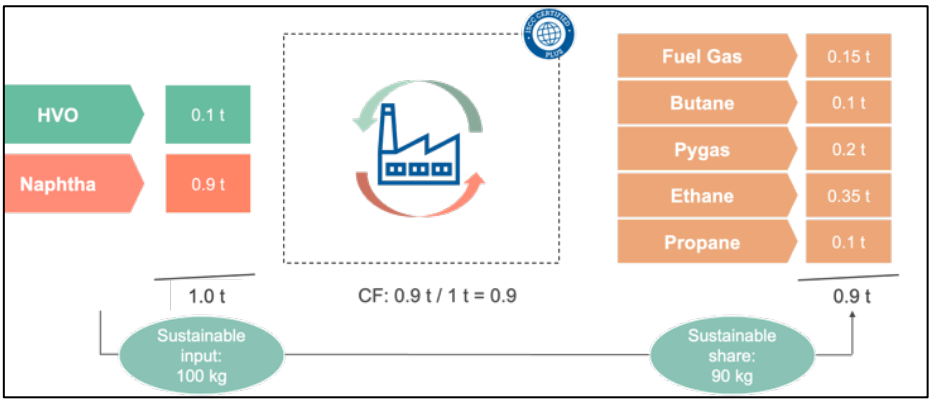


Figure 16: *Example calculation of attribution determined by mass*

b) Attribution determined by energy

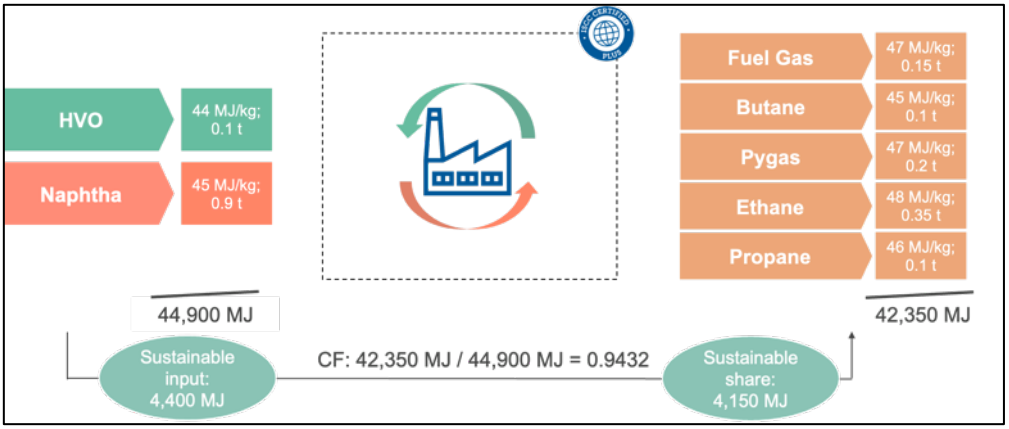


Figure 17: *Example calculation of attribution determined by energy*

9.4.5 Consideration of Additives, Masterbatches and Non-sustainable Organic Content for Mass Balancing

Limits for conversion factors

The sum of all additives, masterbatches and other non-sustainable organic compounds must be less than 3% of the total mass or energetic value in order to be neglected from the mass balance calculation. 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.

9.4.6 Use of Consumption Factors

In case of a multistep reaction network at one site (e.g. chemical park) both, bills of materials and/ or process orders may not allow to use the above stated approach for the determination of the conversion factor of the site/ processing unit. In such a case, each process step can be analysed individually, leading to specific consumption factors for each individual input component of the process step. Consumption factors reflect, how much input material (also taking material losses due to chemical reactions or process inefficiencies into account) must be used to produce a specific amount of the desired material/ component. For some processes and sites, consumption factors can be more accurate in terms of raw material consumption than an overall conversion factor for the whole processing unit. The determination of consumption factors must always be site specific and based on bills of material and/ or process orders being updated and adjusted based on actual consumption data on a regular basis (e.g. annually).

9.4.7 Requirements for Mass Balancing of Renewable Electricity in Electrolysis Processes

For processes in which 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 sustainable share must be attributed to all process products in the same ratio in which these

products are generated per unit of consumed electricity. A “re-attribution” or “shift” of attributed sustainable share from one product of the process to another is not allowed.

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 sustainable credits from chlorine to hydrogen or vice versa.

9.4.8 Consideration of Hetero Atoms

If a product is produced from ISCC compliant and non-compliant input materials and 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 sustainable share of the product, if they are derived from the ISCC compliant input material (molecule). This holds for example for the oxygen atom in bio ethanol, when 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 sustainable share of the product (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[33]. This is allowed for using directly ambient air as a reactant and for using purified oxygen or purified nitrogen as reactants if the oxygen and the nitrogen are derived from ambient air.

It is not allowed to attribute the sustainable share of oxygen and nitrogen during downstream production processes of the supply chain to hydrogen or carbon atoms. Therefore, if oxygen or nitrogen atoms from ISCC compliant input materials are no longer present in the certified output material (molecule)[34], the sustainable share needs to be reduced by the respective mass of oxygen and nitrogen atoms from the ISCC compliant input material. The certified free attribution is hence restricted in those cases to the mass of the hydrocarbon content from the ISCC compliant input material[35].

Since the origin of hetero atoms in an $^{12}C/^{14}C$ analysis cannot be determined, the following norm applies for the determination of the bio-based content after a $^{12}C/^{14}C$ analysis: If a product is processed by chemical synthesis and reactant are derived from both biomass and non-biomass, oxygen (O) and/ or

33 *This explicitly does not hold for the reaction of oxygen or nitrogen with non-compliant (fossil) input. In case of co-processing ISCC compliant with non-compliant input (same material) only oxygen or nitrogen reacting with the ISCC compliant share of the input material can be considered to be part of the sustainable share of the product.*
34 *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.*
35 *Hetero atoms from impurities in input materials with weight percentages <1% do not need to be taken into account for this requirement.*

hydrogen (H) and/ or nitrogen (N) element(s) is/ are bound to a carbon structure derived from biomass, its/ their fraction is/ are considered to be part(s) of the bio-based content[36].

9.4.9 Overview of Requirements for Mass Balance Audits

Mass balance verification is key

The verification of mass balances is an integral part of the audit of an economic operator. It has to be verified by the auditor that the amount of material that has been claimed as being sustainable is less than or equal to the amount that is actually available and also that no multiple-accounting of sustainable material has taken place.

Available to auditor prior to audit

Prior to the audit, the economic operator has to submit all mass balances to the certification body conducting the audit. This applies to all mass balances relevant for the certification of the economic operator, i.e. every site (external storage facility or dependent collecting point) covered by the certificate. In the case of an initial (first) audit the economic operator has to set up a mass balance system which is checked by the auditor during the audit. For all further audits the auditor has to verify at least a sample of mass balance periods (including inputs, outputs, conversion factors and credits carried forward in the) and has to check this against the bookkeeping and documentation.

The following specific aspects and documents have to 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 have to be kept for each site (Chapter 9.4.1)
- List of all inputs, outputs and inventory per site, including descriptions of the materials and information on the suppliers and recipients respectively. This list has to include both sustainable and non-sustainable materials, and if relevant, must also include fossil materials handled by the sites
- Conversion 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 periods. The start and end date of each mass balance period should be documented transparently. The economic operator has to inform the certification body about any changes to the mass balance period
- Verification of the mass balance calculation to ensure that the bookkeeping is balanced or that credits were calculated correctly.
- Sustainable inputs and outputs have to be accompanied by a set of sustainability characteristics (reflected on incoming and outgoing

36 *For further information please see DIN EN 16785-1*

Sustainability Declarations, see Chapter 8.3.2). During the audit it has to be checked that sustainability characteristics from incoming Sustainability Declarations were taken into account correctly to set up the mass balances, and that the sustainability characteristics were allocated correctly to the outgoing material

> Mass balances and other relevant documentation of other certification schemes used by the economic operator have to be taken into account to ensure that no multiple accounting has taken place

9.5 Controlled Blending

Besides physical segregation and mass balance, controlled blending is the third Chain of Custody option available under ISCC PLUS.

Only the sustainability characteristics “bio-based content” (raw material categories bio and bio-circular) can be verified via “controlled blending”. As controlled blending can be used with physical ISCC compliant bio-based feedstocks, monitoring of this physical characteristic can be conducted via C14-isotope analysis.

For controlled blending, the quantity of the physical inputs and outputs at the site must be monitored and documented. Incoming percentage of controlled blending input shall be known beforehand in order to determine the percentage of the output before delivery.

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

> Physical segregation of blended material or product in terms of production, transport and storage

> Clear identification of the blended material or product during the process

Controlled blending will be used by companies to make a stronger claim on the physical characteristics of the product. This must be monitored and documented.

10 Audit Requirements and Risk Management

Conduction of audits

The ISCC EU System Document 204 “Risk Management” covers the requirements of how ISCC audits are to be conducted at different elements of the supply chain, the risk management process under ISCC applicable to all activities of ISCC and the implications of risks for ISCC audits.

This System Document applies equally for ISCC EU and ISCC PLUS.

11 GHG Emissions

Options on GHG emissions

The ISCC EU System Document 205 “Greenhouse Gas Emissions” explains the options of stating greenhouse gas (GHG) emissions along the supply chain and provides the methodology, rules and guidelines for calculating and verifying GHG emissions and emission reduction.

Within ISCC PLUS, the verification of GHG emissions is voluntary and can be added by applying the add-on 205-01 “GHG Emissions”. If the add-on is applied, this System Document applies equally for ISCC EU and ISCC PLUS, with some differing requirements under ISCC PLUS which are described in the following sub-chapters. In case system users have conducted a LCA based on an ISO 14040/44 or ISO 14067 which differs from the ISCC methodology (described in the ISCC EU System Document 205 “GHG Emissions” and in this document), the calculated value needs to be communicated separately and cannot be used to replace a GHG calculation based on the ISCC methodology. [37]

11.1 Deviations with respect to Emission Factors

Emission factors

Within ISCC PLUS, emission factors of input materials can be individually calculated or come from official sources like the Renewable Energy Directive (RED) or Annex I of the ISCC EU System Document 205 “GHG Emissions”. Furthermore, values based on Ecoinvent or other relevant databases or peer-reviewed literature can be used, if applicable. Recognized methodologies for individual calculations of input material emission factors are next to the RED II or ISCC also ISO 14040/44 or ISO 14067. The methodology used for individual calculations by the supplier must always be verified according to the ISO standard or alternatively the supplier must be ISCC certified so that relevant requirements have been verified during an ISCC audit.

11.2 Calculation of Regional GHG Values for Cultivation (e_{ec})

Typical GHG emissions for cultivation

Additionally, for regional averages for cultivation that can be calculated for countries outside the European Community, where no typical emission values for cultivation (NUTS2 values) exist, it is possible under ISCC PLUS for third parties (e.g. companies, plantation owners, associations) to calculate typical

37 *ISCC is going forward with pilot projects to include a methodology for PCF calculations. These pilot projects will be conducted to verify the methodology for PCF calculations for sustainable feedstocks.*

GHG emissions for cultivation. The methodology shall follow ISCC's requirements and ISCC should be informed whenever such values are calculated. However, a submission of the typical GHG emissions values to the European Commission is not required.

11.3 Calculation of Individual GHG Values for Cultivation (e_{ec})

Averaging of GHG values

In case of individual GHG emission calculations for a group of farms or plantations, the averaging of input values and GHG emission values is accepted under ISCC PLUS.

11.4 Aggregation of Different GHG Values

Aggregation of GHG values

Under ISCC PLUS, the aggregation of different incoming GHG values is possible for all input materials of the same kind.

11.5 Allocation of GHG Emissions

Allocation of GHG emissions

Under ISCC PLUS, the allocation of emissions to main and co-products can be based on the energy content of both products (see 4.3.8.1 in ISCC EU System Document 205 "GHG Emissions"), but other types of allocation (e.g. based on mass) are also possible. The most suitable allocation method should always be used, e.g. if the main product is used energetically an energetic allocation should be applied.

11.6 Life Cycle Coverage

Life cycle coverage

Under ISCC PLUS, the GHG emission calculation can either cover the whole life cycle of the product (from cradle-to-grave), or only the emissions up to the factory gate (from cradle-to-gate). In any case the GHG add-on must be implemented in the entire supply chain up to the entity claiming a value on outgoing product. It must always be clearly highlighted on the Sustainability Declaration of the product if the cradle-to-gate approach is used. If required, further information on the additional emission to be included for the product must be provided to the recipient of the material.

ANNEX I – ISCC EU and ISCC PLUS: Overview Differences

1. General Differences between ISCC EU and ISCC PLUS

Issue	ISCC EU	ISCC PLUS
Recognition and Accreditation	ISCC EU is recognized by the European Commission in the framework of the RED II Accreditation by ANSI Surveillance by German BLE	ISCC PLUS at this point in time is a voluntary certification standard for non-regulated markets ISCC is planning to apply for recognition in the space of recycling content, rates, quotas, plastic tax once possible and relevant Accreditation by ANSI
Scope of application	Biofuel markets in the EU	Biofuel markets outside EU and bioenergy, food, feed, chemicals/technical applications
Acceptance of other certification schemes	ISCC EU accepts all voluntary schemes that are recognised by the European Commission in the framework of the RED II and which are in line with ISCC requirements. Acceptance of voluntary schemes is limited to the scope which is recognised by the European Commission.	ISCC EU (ISCC EU certification of the whole upstream supply chain required). Provisionally, timber from forest certified under the Forest Stewardship Council (FSC) forest management (FM) standard. (An additional verification must be conducted to prove compliance with the requirements for the ISCC EU 202-3 Forest Biomass Principle 1.) ISCC will consider benchmarks for potential mutual recognition only with other multi-stakeholder voluntary schemes
Materials currently covered	Coverage of all types of agricultural and forest biomass, biogenic waste and residues (including agricultural, aquaculture,	All types of agricultural and forestry raw materials, waste and residues, non-bio renewables and recycled carbon materials and fuels

	fisheries and forestry residues), ligno-cellulosic and non-food cellulosic materials, including feedstocks listed in Part A of Annex IX of the RED II Coverage of raw materials of non-biological origin, such as liquid and solid waste streams, waste processing and exhaust gas and energy derived from renewable sources other than biomass	
Application of GHG emission requirements	Mandatory for all elements of the supply chain	Voluntary coverage (add-on "GHG Emissions")
Reporting Requirements to the EC	Yes. Annually reporting of sustainable material for producer of final biofuel and certified elements at the beginning of the supply chain (e.g. FGPs, CPs)	Not applicable at this point in time

2. Differences between ISCC EU and ISCC PLUS with regard to 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[38]
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

38 *Conditions in Chapter 9.4.2*

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

3. Differences between ISCC EU and ISCC PLUS with regard to GHG Emission Calculation

Issue	ISCC EU	ISCC PLUS
Application of GHG requirements	Mandatory for all elements of the supply chain	Voluntary application of add-on "GHG Emissions"
Specific GHG requirements for final products	Yes. Producer of final fuel and downstream supplier have to report GHG emissions of fuel, relevant fossil fuel comparator, GHG emission savings (compared to relevant fossil fuel) and statement on start of operations[39]	No. Voluntary if requested by final customer/market. Application of add-on "GHG Emissions" along the supply chain is precondition

39 *According to the RED II an installation shall be considered to be in operation once the physical production of fuel, heat or cooling, or electricity has started (i.e. once the production of fuels including biofuels, biogas or bioliquids, or production of heat, cooling or electricity from biomass fuels has started). shall be considered to be in operation if the physical production of biofuels has taken place.*

4. 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 sustainable 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 hydroxide, bio acrylic acid	Renewable-energy-derived bio sodium polyacrylate	A combination of raw material categories for the super absorbing polymer (SAP) sodium polyacrylate is possible, since this reflects 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 sustainable 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 sustainable share of ammonia.

ANNEX II – Social Criteria for Ocean-bound Plastic

1. Social Development

1.1. A Self-Declaration on Good Social Practice regarding Human Rights Is Available

Commitment to good social practices

A self-declaration on good social practice regarding human rights must have been communicated to the workers. The company management and the workers' representative must have signed and displayed a self-declaration assuring good social practice and the human rights of all workers. The self-declaration must be in a language appropriate to the workers and surrounding communities. This declaration contains the following:

> a commitment to the ILO core labour standards

> respect for a living wage

> respect for the social environment

> commitment to fair contract arrangements

Degree of obligation: immediate requirement

1.2. Other Forms of Social Benefits Are Offered by the Employer to Workers and their Families and/or Community

Incentives for workers

Incentives including incentives for good working performance, bonus payments, support for professional development, family friendliness, medical care/health provisions and the improvement of social surroundings are offered. Workers should be encouraged to take out health insurance by creating awareness and providing information about available insurance policies. Health insurance can include long-term compensation in case of disability and payment of medical costs.

Degree of obligation: best-practice requirement

2. Employment conditions

2.1. No Forced Labour

Forced labour and retaining salary, property

There must be no use of forced, bonded or involuntary labour.[40] Labour that originates from human trafficking is strictly prohibited. Workers are guaranteed the freedom of movement and shall not be forced to hand over their identity cards to the employer or any other third party. If workers voluntarily surrender their identity cards to the employer for safekeeping, they shall have unrestricted access to their identity cards. Access must be free of charge and

40 *In line with ILO Conventions 29 and 105*

it can be documented. An agreement on the safekeeping of identity cards shall be available in written form, in a language understood by the worker. Retaining workers' salary, excessive deduction of fees from wages for disciplinary purposes, personal protective equipment, or deposits for accommodation or tools is prohibited.

Degree of obligation: immediate requirement

2.2. No Child Labour

Children and young, pregnant or disabled workers

Child labour is prohibited, as well as all forms of slavery or practices similar to slavery. The minimum age must comply with all local and national legislation as well as with ILO Conventions 138 and 182. No minors are to be employed. Documents must include records of workers' dates of birth and documented evidence that the employer is aware of relevant legislation.

Degree of obligation: immediate requirement

2.3. No Discrimination

Equality of opportunities

There shall be no indication of discrimination (distinction, exclusion or preference) practiced that denies or impairs equality of opportunity, conditions or treatment based on individual characteristics and group membership or association.

Degree of obligation: immediate requirement

2.4. Respect and Ensure Gender Equity

Equal participation in meetings and consultations

Special attention shall be paid to ensure that women and minority groups can participate meaningfully in meetings and negotiations in order to articulate/communicate their concerns/ideas. In all stakeholder consultation processes, including the FPIC, women and minority groups shall be appropriately included and their voices equally heard and respected.

Degree of obligation: immediate requirement

2.5. Regular Employment Is Available wherever Possible

Employment relationships

Employment relationships shall be established through national law and practice. The employment of contract or temporary workers for permanent or ongoing tasks, e.g. to eliminate or reduce pay and benefits, shall not take place. This can be supported by a regular assessment of ways to promote the use of permanent and local labour.

Degree of obligation: best-practice requirement

2.6. Workers are Treated with Dignity and Respect

No punishment or abuse

The company shall not engage in or tolerate the use of corporal punishment, mental or physical coercion, verbal or physical abuse or sexual harassment or any kind of intimidation of workers. No harsh or inhumane treatment is permitted. A policy to prevent sexual and all other forms of harassment and violence shall be implemented and communicated to all levels of the workforce, contract workers and service providers.

Degree of obligation: immediate requirement

2.7. All Workers Are Provided with Fair Legal Contracts

Signed working contracts

All workers are provided with fair legal contracts in written form and in the languages understood by workers and explained carefully to them in case of low literacy. Copies of working contracts must be able to be shown to the auditor for every worker indicated in the records. Both the worker as well as the employer must have signed them. Personnel records for each employee must be kept for at least 24 months. Where a registration system exists, copies of working contracts must be registered with the labour authority of the country of production. In those countries where there are no requirements for formal labour agreements between workers and employers, alternative documented evidence of a labour relationship must be present.

Degree of obligation: immediate requirement

2.8. A Living Wage Is Paid Which Meets at least Legal or Industry Minimum Standards

Payment

The company's pay slips demonstrate that living wages meet at least legal or industry minimum standards and are sufficient to meet the basic needs of workers and provide some discretionary income. Gross wages are paid to workers at least monthly.

Degree of obligation: immediate requirement

2.9. There Is a Person Responsible for Workers' Health, Safety and Good Social Practice

Competence of represent

An organigram is in place including the responsible person for workers' health, safety and good social practice.

Degree of obligation: immediate requirement

2.10. Records of All Workers and Employees Are Available

Record-keeping of employees

Records should clearly demonstrate an accurate overview of all workers and employees (including seasonal workers and subcontracted workers). The

records must indicate full names, a job description, date of birth, date of entry, wage and the period of employment. Records must be accessible for the last 24 months.

Degree of obligation: immediate requirement

2.11. Working Times and Overtime Are Documented

Record-keeping of working times

There is a time recording system that makes daily working time and overtime on a daily basis transparent for all workers and employers. Working times of all workers during the last 24 months are to be documented. Rest breaks/days should also be documented during peak seasons.

Degree of obligation: immediate requirement