IN-DEPTH

Understanding SAF Sustainability Certification

Guidance document on requirements and criteria for sustainability certification

June 2024

This document aims to provide clear guidance on the requirements and criteria for SAF sustainability certification, in the interest of promoting consistency in the interpretation and application of sustainability standards across different stakeholders and facilitating the certification process.

This document was developed in collaboration with the following organizations:

RSB Roundtable on Sustainable Biomaterials www.rsb.org

ISCC International Sustainability & Carbon Certification

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INTRODUCTION

Sustainability certification serves as a comprehensive tool for demonstrating environmental, social, and economic sustainability across various aspects of operations, products, and supply chains. It enhances credibility and trust and is an important process to assure that products or services offered by an organization meet recognized sustainability standards or comply with environmental regulations and standards set by governments and regulatory bodies.

Sustainability certification for Sustainable Aviation Fuel (SAF) has gained significant momentum in recent years as the aviation industry seeks to decarbonize[1] and transition to more sustainable fuels. As a growing number of participants enter the SAF supply chain, many, being new to the concept of sustainability certification, have questions relating to it.

This document aims to answer these questions and to provide clear guidance regarding the requirements and criteria for SAF sustainability certification. This can promote consistency in the interpretation and application of sustainability standards across different stakeholders and facilitate the certification process.

The document comprises five chapters, addressing important questions in the context of SAF sustainability certification. A further section covers more specific and specialized questions (FAQ). A glossary explains the key terms used in this document.

This document will be updated periodically to reflect significant regulatory and compliance changes as they occur and to provide additional information, and the latest version will be available on iata.org.

[1] IATA's member airlines adopted the resolution to achieve net-zero carbon emissions by 2050 at the Annual General Meeting in 2021. This strong commitment has been developed in the IATA roadmaps which set out the milestones for the transition to net-zero carbon emissions (Net Zero Roadmaps). In 2022, the International Civil Aviation Organization (ICAO) adopted a long-term global aspirational goal (LTAG) for international aviation of net-zero carbon emissions by 2050.

1. WHAT IS SUSTAINABILITY CERTIFICATION?

Sustainability certification is the process whereby a product, service, or organization is assessed against a set of criteria or standards to determine its environmental, social, and economic sustainability performance. These certifications are generally conducted by independent third-party organizations and serve as a way for consumers, businesses, and other stakeholders to identify and support sustainable practices. They are also used by government authorities to ensure compliance with specific regulations.

Sustainability certification plays a crucial role in promoting transparency, accountability, and continuous improvement in various industries. It helps drive positive environmental and social impacts while meeting economic objectives.

For SAF, sustainability certification involves evaluating the environmental, social, and economic aspects of the fuel production process to ensure that it meets specific sustainability criteria.

Generally, sustainability certification aims to ensure the following:

Sustainability in feedstock production

- SAF can be produced from a wide range of feedstocks – including crops, wastes, agricultural or forestry residues, processing residues, and by-products.
- For primary biomass (e.g., crops), certification aims to ensure that feedstock is not cultivated on certain valuable lands (such as those classified as high carbon stock or highly biodiverse). In addition, feedstock cultivation must avoid negative environmental effects (on water quality and availability, soil health, air quality, conservation, etc.) as well as detrimental socioeconomic effects (e.g., on human and labor rights as well as food security, among others).
- For wastes and residues (e.g., used cooking oil), the focus is on verifying that those feedstocks are genuine wastes and residues – i.e., that they have not been intentionally modified or contaminated to count as waste or residue.

Traceability and chain of custody of sustainable materials through the supply chain

- The term "traceability" describes the ability to identify and trace the origin, processing history, distribution, and location of products (e.g., sustainably certified SAF) as they move through supply chains.
- The term "chain-of-custody" describes the process of transferring, monitoring, and controlling inputs and outputs and related information as they move through the supply chain. In essence, this provides assurance that a given batch of product (e.g., a batch of SAF) is associated with a set of specific characteristics (e.g., related to its sustainable production or savings in greenhouse gas emissions) and that the information on these characteristics is also transferred, monitored, and controlled throughout the supply chain.
- Demonstrating traceability and chain of custody throughout the supply chain is essential, as it forms the basis for any claims made about the certified product, i.e., SAF. This is particularly important because SAF supply chains can often be complex, globally spanning, and involve co-mingling of sustainable with non-sustainable products at different supply chain stages.

Verified reduction in life cycle emissions compared with conventional aviation fuel alternatives

- Providing assurance that SAF truly achieves greenhouse gas (GHG) emissions reductions over its full life cycle compared to its conventional, fossil-based counterpart is crucial. Many regulatory frameworks (e.g., ReFuelEU Aviation and ICAO CORSIA; see definitions in the Glossary) prescribe certain GHG

emissions saving thresholds that SAF must meet to be able to be considered eligible under those frameworks.

- GHG emissions arise along the full life cycle of SAF, including at the level of feedstock production, processing and refining, storage, transport and distribution, and combustion. Taking a comprehensive life cycle approach to GHG emissions from SAF is essential to ensure the full GHG emissions impact of SAF is considered.
- Certification schemes (see Chapter 2) provide a standardized framework for how GHG emissions are to be consistently calculated and verified along the SAF life cycle – in line with GHG emissions methodologies as defined under relevant regulatory frameworks (e.g., EU RED or CORSIA).

Overall, sustainability certification for SAF aims to provide assurance to airlines, regulators, and consumers that the fuel meets rigorous sustainability criteria and contributes to reducing the aviation industry's environmental footprint. It helps to promote transparency and credibility in the market while driving the adoption of more sustainable practices in SAF supply chains.

2. WHO PROVIDES SAF SUSTAINABILITY CERTIFICATION?

A sustainability certification standard is a structured framework or set of criteria used to assess and verify the sustainability performance of products, services, or organizations.

Several organizations offer such standards under their sustainability certification schemes (SCS). Basically, sustainability certification schemes operationalize and implement sustainability certification standards through accreditation, auditing, and certification processes, ensuring credibility and consistency in certification.

As of today, two organizations are particularly prominent in SAF sustainability certification: the International Sustainability and Carbon Certification (ISCC), and the Roundtable on Sustainable Biomaterials (RSB). Both offer SAF sustainability certification schemes for regulatory compliance (specifically with CORSIA[2] and EU RED[3]), and for the voluntary market, as follows:

Table 1: Who provides SAF certification?

Scheme Provider	**SAF Certification Scheme[4]**		
	For compliance with ICAO CORSIA	For compliance with EU RED	For voluntary market
ISCC	ISCC CORSIA	ISCC EU	ISCC CORSIA, ISCC EU, ISCC PLUS
RSB	RSB ICAO CORSIA	RSB EU RED	RSB ICAO CORSIA, RSB EU RED, RSB Global

Source: ISCC and RSB

It is important to note that the ISCC CORSIA/RSB ICAO CORSIA schemes are specific to SAF, whereas the ISCC EU/RSB EU RED and ISCC PLUS/RSB GLOBAL schemes cover SAF in addition to other transport fuels (e.g., for maritime and road transport) as well as non-fuel products.

Currently, the ISCC and RSB certification schemes are the only schemes recognized by the International Civil Aviation Organization (ICAO) for SAF sustainability certification. This will likely change and more SCSs should be recognized as SAF usage spreads globally. For EU RED, the European Commission formally recognized 15 certification schemes for SAF certification but only two schemes (ISCC EU and RSB EU RED) are currently used in the market. This guidance document will therefore largely focus on the schemes offered by ISCC and RSB.

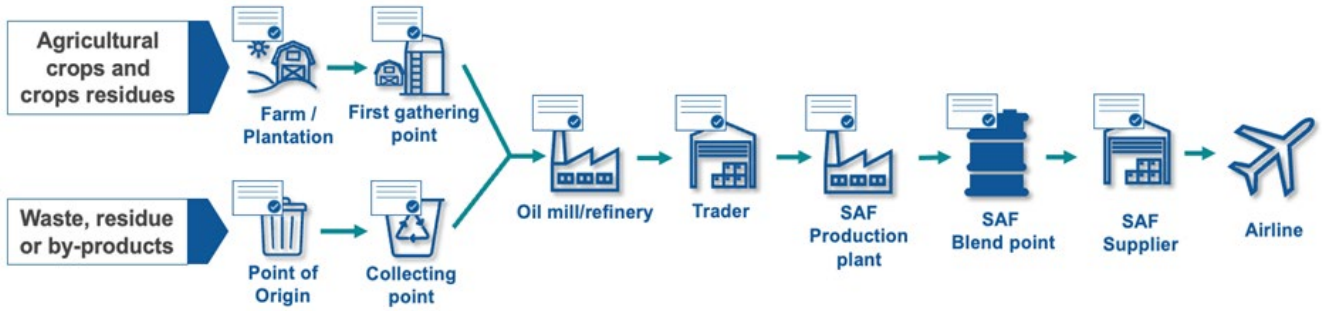
[2] Carbon Offsetting Reduction Scheme for International Aviation, a global market-based measure developed by the International Civil Aviation Organization (ICAO), the United Nations specialized agency responsible for civil aviation.
[3] The European Union Renewable Energy Directive (EU RED) is a key piece of legislation within the European Union aimed at promoting the use of renewable energy sources and reducing greenhouse gas emissions in the energy sector. The directive was first adopted in 2009 and has since undergone revisions, with the latest version being the Renewable Energy Directive II (RED II), which was adopted in 2018 and became effective in December 2020. Together with ReFuelEU and EU ETS, they make up three interconnected policies aimed at reducing greenhouse gas emissions and promoting sustainable energy in the European Union. Descriptions of these three policies are in the Glossary section.
[4] Under the ICAO CORSIA framework, certification schemes are officially named "Sustainability Certification Schemes" or SCS. Under the EU RED framework, certification schemes are officially named "Voluntary Schemes".

3. WHO NEEDS TO BE CERTIFIED?

SAF supply chains feature feedstock production, different processing and refining steps, and transportation and distribution of raw materials, intermediates, and final SAF. These supply chains can be complex, global in scope, and involve the commingling of sustainable and non-sustainable products at different stages of the supply chain.

As ensuring traceability and chain of custody is key to maintaining the integrity of SAF, it is essential that every "participant" – often also referred to as economic operator – is individually certified. Individual certification implies regular auditing of that economic operator – regarding compliance with sustainability requirements, traceability, and chain of custody, as well as accurate calculation of GHG emissions.

Figure 1: Depiction of a hypothetical SAF supply chain



Source: ISCC

Each economic operator, from feedstock production (e.g., farm or "point of origin" for waste and residue materials) up to the SAF supplier, is certified (an exception applies for CORSIA certification, where ICAO mandates individual certification only up to and including the SAF blender). In other words, any economic operator along the supply chain who makes changes to the SAF (chemical change or change to the GHG emission factor[5]) or takes legal ownership of the SAF feedstock or SAF, must be certified.

Specific scenarios

- A provider of storage for the SAF (or SAF-blend) who does not take ownership of the SAF or make changes to it would be exempt from certification. For example, an intermediate storage provider who does not have ownership of the SAF but merely provides a service to an economic operator, is itself not required to hold its own certification, but the economic operator would need to include the storage facilities as part of its certification scope and be responsible for maintaining the book-keeping and mass balance system.
- A blender who provides a SAF blending service but does not take ownership of the SAF does not need to be certified. The economic operator using the blending service must include the blending facilities as part of its certification scope and be responsible for maintaining the book-keeping and mass balances. However, if the blender owns the SAF, it must be certified.
- A fuel reseller who purchases SAF from producers, distributors, or other fuel suppliers and then sells or resells it to airlines, takes ownership of the SAF in the process and hence will need to be certified.

[5] A greenhouse gas (GHG) emission factor is a numerical value that represents the amount of greenhouse gas emissions produced per unit of activity, product, or energy consumed.

It should be noted that transportation of sustainable material between economic operators in the supply chain is not covered by individual certification. Instead, all information relevant to transportation (e.g., the calculation of the resulting GHG emissions) is already covered in the certification of the other economic operators (i.e., the respective seller and recipient of sustainable material).

Following a successful audit, certified entities will be issued a certificate containing a certificate number. Under ISCC certification schemes, certificates are site-specific. A certificate can only be issued per geographical site and legal entity. RSB certification schemes allow for flexibility of a certificate to cover a single geographical site or multiple geographical sites within the same supply chain.

ISCC and RSB recognize each other's CORSIA and EU RED compliance certification schemes. For example, if an entity at a geographical site is certified under ISCC's CORSIA scheme, the next operator in the supply chain can hold an RSB CORSIA certification and accept the material produced at the ISCC site as part of this recognition. However, ISCC and RSB do not currently recognize each other's SAF certification schemes for the voluntary market (ISCC PLUS and RSB Global).

4. WHAT ACTIVITIES CAN A CERTIFIED ENTITY PERFORM?

Certification recognizes that an entity (i.e., an economic operator such as a feedstock producer, fuel producer or trader) has demonstrated compliance with specific sustainability criteria and standards established for SAF production and supply chains under a certain certification scheme. With this recognition, the certified entity is in the position to handle (i.e., receive, store, process and further sell) certified sustainable material and issue valid documentation proving the sustainability of that sustainable material.

Handling of SAF

An economic operator certified under a particular SAF sustainability certification scheme can handle sustainable material compliant with the scheme's requirements, and purchase from and sell to other economic operators certified under that same scheme or a scheme recognized as equivalent.

For example, an economic operator certified under ISCC CORSIA can buy from another economic operator certified under either ISCC CORSIA or RSB ICAO CORSIA[6] and sell to another economic operator certified under either ISCC CORSIA or RSB ICAO CORSIA.

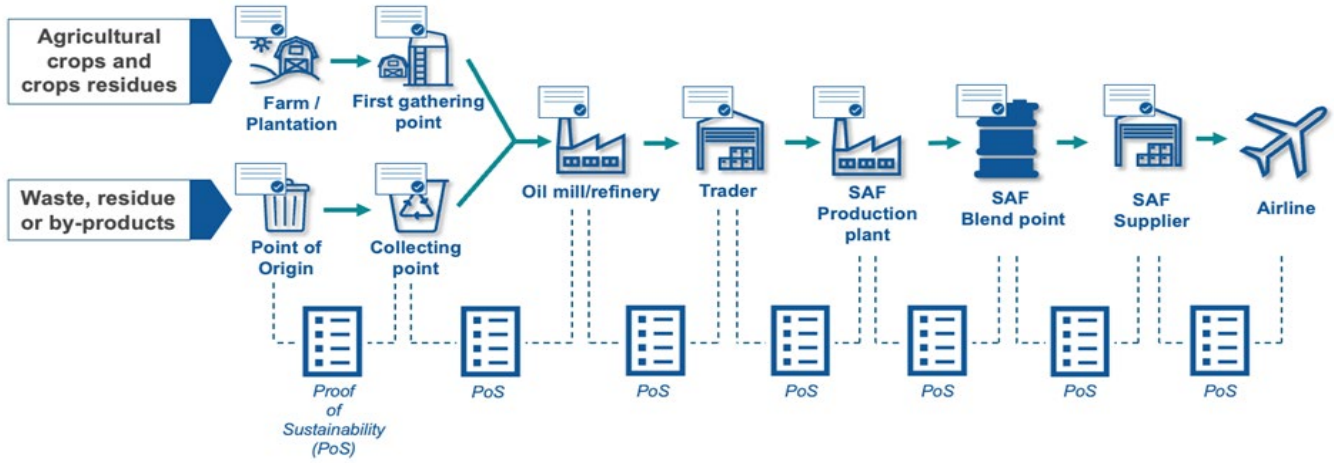
In doing so, the economic operator is required to implement a robust chain of custody system, which includes both the management processes as well as the tracking system needed to maintain accurate records and documentation to ensure the integrity and traceability of the SAF handled. In particular, the flow of sustainable material needs to be tracked, in terms of both the quantity of material and its associated environmental attributes, such as GHG emissions savings.

Proof of Sustainability

A certified economic operator must provide proof of sustainability documentation for any batch of outgoing sustainable material, no matter if that is the raw material, intermediate product or SAF. The relevant documentation is commonly referred to as a Proof of Sustainability (PoS). The PoS contributes to establishing a robust chain of custody in the SAF supply chain, as depicted in the flow diagram below, based on a hypothetical SAF supply chain.

[6] **ISCC and RSB recognize each other's CORSIA and EU RED compliance certification schemes.**

Figure 2: PoS to ensure a robust chain of custody



Source: ISCC

Airlines require their SAF suppliers to provide a PoS for the batch of SAF they purchase. The PoS is needed mainly as supporting documentation to enable the airlines to claim the environmental attributes of the SAF under various regulatory frameworks. For example, a PoS issued under the ISCC CORSIA or RSB ICAO CORSIA schemes is required for claims against CORSIA emissions obligations, and a PoS issued under the ISCC EU or RSB EU RED schemes is required for claims against the EU-ETS emissions obligations.

ISCC and RSB provide PoS templates for each SAF certification scheme they offer. The use of these templates is optional – currently, the respective templates are accessible only upon successful registration as an RSB Operator or ISCC System User. It is important to note that if a certified entity chooses to develop its own PoS template, it is mandatory for that template to include all required sustainability information, as shown in Appendix I.

For SAF to be compliant with CORSIA requirements, supplementary information must be provided, in addition to what is generally included on the PoS. This supplementary information accompanies the PoS issued from the SAF production point onwards. The additional data elements are listed in Table A 5.2, Appendix 5 of the CORSIA Standards and Recommended Practices. An extract of this list can be found in Appendix II. RSB has appended this same list to its PoS template for the RSB ICAO CORSIA scheme.

5. HOW DOES AN ENTITY BECOME CERTIFIED?

Registration and certification for ISCC and RSB schemes generally involve a 5-step process as depicted in the flow diagram below:

Figure 3: Certification process

Source: ISCC

An economic operator seeking SAF sustainability certification must first identify which scheme or schemes[7] it would like to be certified for. To reduce audit efforts and costs, ISCC and RSB allow certification for their different SAF certification schemes to be carried out concurrently, i.e., through a combined audit. After a successful combined audit, the economic operator will be granted certification for each scheme.

Independent third-party Certification Bodies[8] (CB) that are recognized by ISCC and RSB carry out the audits. The economic operator will choose their Certification Body from a list of recognized CBs provided by ISCC (here) or RSB (here).

Preparation for an audit

To prepare for an audit by a Certification Body, an economic operator should refer to the audit procedures published by ISCC (here) or RSB (here). Certification bodies use these audit procedures to assess if an economic operator is complying with the requirements of each scheme.

Although there are differences in the preparations needed for each scheme, there are also significant overlaps in elements and requirements such as the management system (which can be the same for the different schemes), the traceability system (as long as different product batches and their compliance to the individual schemes are clearly tracked), and the data required for emissions calculations. In addition, the audit procedures can be used by economic operators to conduct their own internal audits, assessments and for internal training. Both the RSB and ISCC can provide an economic operator with an audit checklist to help it prepare to meet the requirements of its chosen scheme.

Process for certification

The process for obtaining certification is similar for both RSB and ISCC:

- The economic operator must register or apply to become an RSB Operator or ISCC System User on their respective websites.

[7] In the case of ISCC, the schemes are ISCC CORSIA, ISCC EU, and ISCC PLUS. In the case of RSB, the schemes are RSB ICAO CORSIA, RSB EU RED, and RSB Global.

[8] A Certification Body for SAF is an independent organization or entity responsible for conducting assessments, audits, and evaluations of SAF production facilities, feedstock suppliers, and supply chains to verify compliance with specific sustainability standards and criteria.

- RSB Only: there will be a 2-week public comment period and due diligence process on the applicant.
- Once accepted, the economic operator will prepare for the audit by conducting a GHG emissions calculation, implementing the certification requirements, creating a chain of custody system, ensuring that sustainability criteria are complied with etc.
- The Certification Body conducts the audit at the economic operator's premises.
- If any major non-conformities are identified, 90 days will be provided to address these non-conformities.
- Once the non-conformities (if any) are addressed, the audit is successfully completed, and the Certification Body issues the certificate to the economic operator. The certificate will have a unique Certificate ID and appear on the RSB or ISCC website as proof of compliance.
- The validity of the conformity status is dependent on the sustainability certification scheme:
  - ISCC - the certificate is generally valid for 12 months. After this period, the economic operator must undergo recertification to ensure continued compliance with the ISCC requirements.
  - RSB - the certificate has a validity period based on the risk class of the operator (2, 3 or 5 years). An annual surveillance audit will be conducted to maintain the certificate in the intervening years.

FREQUENTLY ASKED QUESTIONS (FAQ)

What are the key elements in a sustainability certification ecosystem? What are the roles and responsibilities of the different organizations involved?

Regulatory Authority: The European Commission for EU RED and the International Civil Aviation Organization (ICAO) for CORSIA act as the overarching regulatory authority, respectively. They manage the assessment, approval, and continuous monitoring of all certification schemes recognized under their regulations. The Regulatory Authority interacts regularly with all certification schemes and other stakeholders responsible for certification implementation, and provides clarification whenever there is uncertainty about the applicability of EU RED or ICAO CORSIA provisions in a given situation.

Economic Operators: Economic operators are part of supply chains that can be governed by a particular regulatory framework, such as EU RED or ICAO CORSIA. Also known as Participating Operators, Economic operators include feedstock producers (e.g., farms or points of origin for wastes and residues), processing units (e.g., oil mills or SAF production plants), traders, and storage units. Each economic operator that takes part in the supply chain and handles (i.e., receives, stores, processes and forwards) sustainable product will need to be certified. Economic operators are audited by certification bodies against the requirements set by certification schemes, concerning feedstock sustainability criteria, their traceability and chain-of-custody system, and greenhouse gas emissions.

Certification Schemes: Certification schemes define sets of rules and requirements, on the basis of which certificates of conformity or compliance are issued to economic operators. Under regulatory frameworks such as the EU RED or ICAO CORSIA, owners of certification schemes draft and develop certification schemes based on and in line with the applicable regulatory framework. In essence, the sustainability provisions of the legislative framework are taken and implemented as part of a comprehensive auditing and certification framework, with the aim of it being both robust and practical in its widespread application and verification.

Certification Bodies: While certification schemes, based on the regulatory framework, define the criteria that economic operators must comply with in order to become certified, it is not the certification schemes themselves that conduct the audits to check and verify compliance. Instead, owners of certification schemes generally approve and work with so-called certification bodies for that purpose (third-party certification principle).

Certification bodies are independent, third-party organizations that handle the certification process, including the assessment of the individual economic operator's compliance with the requirements of the certification schemes. Certification bodies are authorized by the certification scheme's owners to issue certificates of compliance to economic operators, provided the operators comply with the requirements defined under the certification scheme. Commonly, certification bodies are required to conform with relevant ISO standards. In the context of the EU RED, for instance, certification bodies must conduct audits following the ISO/IEC 17065 standard for product certification and ISO/IEC 17021 for management system certification in particular.

Accreditation Bodies: Certification bodies themselves may be subject to audits by their competent national authority (i.e., the competent authority of the country the certification body is registered in). However, their main "license to operate" is generally derived from the certification body's accreditation by so-called accreditation bodies.

Accreditation refers to the independent, third-party evaluation of a conformity assessment body (i.e. a certification body) against recognized standards, conveying formal demonstration of its impartiality and competence to carry out specific conformity assessment tasks (such as certification). Accreditation bodies are established in many economies with the primary purpose of ensuring that conformity assessment bodies are subject to oversight by an authoritative body. In the context of the sustainability certification "ecosystem",

including under the EU RED and CORSIA, accreditation bodies have the essential role of continuously verifying that certification bodies work in conformance with relevant ISO standards and the requirements set by the certification schemes the certification bodies are cooperating with.

Is there a difference between a PoS and a certificate?

A certificate:

- is a document issued by a Certification Body certifying that an economic operator (e.g., a SAF producer or supplier) complies with requirements of a particular certification scheme
- puts the economic operator in the position to produce or trade SAF as compliant under the certification scheme
- does not mean that each and every outgoing batch of fuel is automatically sustainably certified.

A Proof of Sustainability (PoS):

- is a document issued by a certified economic operator (e.g., a SAF producer or supplier)
- confirms that a given batch of SAF meets the requirements for sustainability and GHG emissions savings under a certain scheme or regulation (e.g., ISCC EU or RSB CORSIA)
- is the main piece of documentary evidence used by SAF suppliers or aircraft operators for regulatory compliance (e.g., under EU RED, EU ETS, ICAO CORSIA).

Can a PoS be issued that indicates conformance of the SAF with two different schemes (CORSIA and EU RED)?

So far, the concept of "dual conformance", i.e., a single batch of SAF being compliant with two different schemes (such as EU RED and CORSIA), is neither explicitly excluded nor explicitly considered in the existing regulations and under existing certification rules. However, both ICAO and the European Commission have recently started exploring and discussing this topic. Should the concept of dual conformance be implemented in the future, an economic operator certified under the CORSIA and EU RED schemes would then be in the position to issue a PoS for a batch of SAF that indicates compliance with both schemes (provided that the SAF actually meets the sustainability requirements of CORSIA and EU RED along the full supply chain). In any case, to avoid improper double counting of GHG emissions reductions, the aircraft operator will choose only one scheme under which that SAF will be claimed (i.e., generally either EU ETS or CORSIA).

If a supplier has surrendered to State authorities the PoS for a batch of SAF to prove compliance with a SAF blending mandate (e.g., ReFuelEU blending mandate), which documentation can be provided to the aircraft operator for the same batch of SAF to allow the aircraft operator to claim the associated GHG emissions reduction under regulatory frameworks such as CORSIA or EU ETS?

Once the PoS has been surrendered to competent authorities, the fuel supplier is prohibited from issuing a duplicate PoS to downstream operators and aircraft operators as that would incur the risk of double claiming. As a consequence, aircraft operators may not receive the documentation they need to later make an emissions reduction claim under the EU ETS or CORSIA accepted by the authorities.

To resolve this documentation issue, ISCC and RSB are working on a Proof of Compliance (PoC) concept. The PoC is a document intended to, just like the PoS, provide documentary evidence regarding the compliance of a fuel batch with the EU RED or CORSIA criteria. The PoC is further intended to be a document that provides this evidence in a standardised format, agreed on with relevant stakeholders (competent authorities, aircraft operators, fuel suppliers, certification schemes and certification bodies), and underpinned by a robust auditing framework.

Importantly, the PoC should only be relevant and come into play if the PoS has been surrendered upstream (e.g., under a fuel supplier obligation). Should the PoS still be available (i.e., not submitted upstream for compliance purposes under a fuel supplier obligation), then the PoS can and should be forwarded to aircraft operators. In such case, no PoC is needed and PoC issuance should not be allowed.

The aim is for the PoC concept to be implemented latest by the end of 2024.

Can the POC issued by an EU SAF certified supplier who is subject to EU SAF blending mandate be used under CORSIA?

Currently this cannot be done, however, discussions with ICAO on this topic are taking place and there could be developments regarding this topic shortly.

Is a PoS required for a corporation to claim Scope 3 emissions?

GHG Scope 3 emissions claims are typically considered voluntary in the sense that organizations are not required by regulations or reporting frameworks to account for and report them. The provision of a PoS to a corporate entity for a Scope 3 claim is, therefore, not a requirement. For most corporate entities, it suffices that a simple documentary proof is backed by a regular audit carried out by an independent external auditor engaged by the seller of the Scope 3 emissions.

How is it ensured that a PoS ID is unique?

Issuance of the PoS ID is decentralized. Each certified entity issues its unique PoS ID according to its own protocol. The Certification Body, i.e., the auditor, will check and verify that there is no duplication of PoS IDs within the same certified economic operator. It is recommended that organizations issue PoS IDs that contain at least 5 digits in combination with letters to ensure that they are unique. Should identical PoS ID numbers ever occur, other information on the PoS should ensure that the SAF batches are not confused with one another.

How do we know if a unique PoS has not been provided to multiple parties or more than one PoS is issued for a particular batch of SAF?

This is checked by the Certification Body, i.e., the auditor, as they will keep track of book-keeping systems of each economic operator and will verify where batches of certified material are sent to ensure that double-booking does not occur.

What is/will be the role of EU Union Database (UDB) in PoS transactions?

As per EU regulation, economic operators participating in EU RED supply chains (including for SAF intended to be counted under ReFuelEU Aviation) are mandated to record their transactions in the EU's UDB. The EU, in collaboration with relevant stakeholders, is currently working on the proper integration of SAF-related transactions in the UDB. A crucial role of certification schemes will then be to verify that transactions are recorded properly in the UDB by economic operators. Greater clarity is expected soon as the UDB is further developed, including with regard to SAF-relevant functionalities.

Which feedstocks are eligible for producing SAF? What role does certification play in this?

Both EU RED and ICAO CORSIA consider a range of different feedstocks, yet have differing approaches to the recognition of feedstocks under their respective frameworks.

ICAO CORSIA: Crop feedstocks require default values to be calculated by ICAO before these crops can be considered eligible feedstocks under CORSIA. Currently, a range of food and feed crops (such as rapeseed, palm and corn) as well as non-food and feed crops (such as camelina and jatropha) are eligible. New crop feedstocks can be put forward for ICAO to consider. ICAO also maintains a positive list for feedstocks considered as waste, residues or by-products. This list includes wastes (such as used cooking oil and municipal

solid waste), agricultural residues (such as cobs and manure), forestry residues (such as branches and tree tops), processing residues (such as palm oil mill effluent and sewage sludge) as well as by-products (such as tallow and technical corn oil). The positive list is an open list, in that materials can be put forward for ICAO to consider adding to this list. In addition, ICAO is working on provisions for so-called high-electricity input fuels, which would include e-SAF.

EU RED: While crop feedstocks are generally eligible under the EU RED, they are not considered eligible feedstocks under The EU's ReFuelEU Aviation Regulation. Instead, ReFuelEU focuses on waste and residue feedstocks listed in the EU RED's Annex IX. Recently, the EU introduced amendments to the pool of eligible feedstocks by also including, inter alia, intermediate crops, if cultivated under certain conditions. In addition, the EU focuses on e-SAF (commonly also referred to as Renewable fuels of non-biological origin or RFNBO in EU regulation) which uses renewable electricity and a variety of carbon sources as feedstocks.

If Book and Claim or equivalent SAF accounting system is widely recognized and the environmental attributes of SAF can be traded, do airlines also need to be certified?

In such systems, the economic operator who is booking the sustainability characteristics from the certified material into the registry needs to hold a valid certification. This could be the airline in some cases, and more frequently the fuel supplier or the blender.

What is the difference between a "Voluntary Scheme" and a "Sustainability Certification Scheme"?

They mean the same thing. Voluntary Scheme is a term used mainly by the European Commission in the context of EU RED. Sustainability Certification Scheme or SCS is commonly used by ICAO in the context of CORSIA. Both terms are typically used to describe the body that runs the certification schemes, so ISCC or RSB.

What happens to the PoS in the case a batch of SAF is divided into smaller sub-batches?

The PoS is split and the corresponding information is added to different PoS documents (the number of PoS documents corresponds to the number of splits). This kind of activity is checked at audit to prevent any fraud or double counting by operators.

Is it required for farm, a plantation, or other Point of Origin to be individually certified?

Farms and Points of Origin are not required to be certified individually. They often form part of a group and are then allowed to undergo group certification, maintaining the same management systems and relevant documents as each other. This allows them to be easily tracked and audited as part of a sample size of the group. In essence, this group certification approach allows establishing a sufficient level of assurance while reducing the administrative burden on these (often smaller) feedstock producers, which may otherwise have to be excluded from the feedstock pool due to prohibitive auditing efforts and costs.

Does the PoS have to be a physical document, or can it also be issued as a soft copy?

Both physical and soft copies of the PoS are acceptable. The PoS document can take many forms e.g., it can be a standalone document using the Excel template provided by the SCS, or it can be combined with the invoice or other documents that follow the batches of material along the supply chain. In whichever form, with each batch of sustainable material, the PoS must show the complete and correct information as outlined in Appendix II. Examples of completed PoSs using the templates provided by ISCC and RSB for the EU RED and CORSIA schemes are provided in Appendix III.

In the calculation of the GHG intensity shown in the PoS, is the choice of use of actual emission values and default emission values entirely left to each economic operator along the supply chain?

- Generally yes, it is the choice of the economic operators in the supply chain which GHG options they choose to apply.

- Default values are selected from a list issued by the regulator (e.g., ICAO or the European Commission). The default values for CORSIA Eligible Fuel are contained in the ICAO document "CORSIA Default Life Cycle Emissions Values for CORSIA Eligible Fuel" available on the ICAO website. The default values for EU RED are contained in the Annexes of the EU Renewable Energy Directive (RED II). As part of economic operators' audits, the certification bodies will verify that those operators are using the correct and most up-to-date default values.

- Actual values are individually calculated by economic operators, using an approved methodology (e.g., CORSIA methodology under CORSIA). While actual values often produce lower total Greenhouse Gas emissions compared to default values, the methodology to obtain them requires much more effort and data availability. As part of economic operators' audits, the certification bodies will verify that those operators have properly used the respective GHG emissions methodology to calculate these actual values.

- If actual values are used for the Total GHG emission of a batch of SAF, it is possible to change that to the default value for a PoS issued downstream. However, once the default value for the total GHG emission value is used, it cannot be changed to the actual value for the PoS issued downstream (as it is generally impossible to accurately calculate and verify actual GHG emissions retroactively and for upstream economic operators).

Is Co-processed SAF recognized under the CORSIA and EU RED schemes?

SAF produced from co-processing is generally accepted under both EU RED and CORSIA.

EU RED recently issued a Delegated Regulation, containing updated co-processing rules. Delegated Regulations are used to make technical or detailed adjustments to existing legislation without requiring a full legislative procedure. Certification schemes have handed in documents containing updated certification requirements based on this Delegated Regulation to the European Commission, and these are pending approval. Updated co-processing rules, particularly with regard to determining the bioshare of the outgoing product, will be released by certification schemes following approval by the European Commission.

ICAO has defined requirements for co-processing of SAF under CORSIA, which have been implemented by the ICAO-approved certification schemes. GHG emissions values for co-processed SAF under CORSIA can be determined either via default values (if available for the co-processing pathway in question) or via actual values using the CORSIA methodology. ICAO allows different approaches for determining the bioshare of the output, such as via energetic determination or through the efficiency/losses of a process, however does not presently allow "free attribution" of the bioshare to outgoing product.

What certification must an airline get in order for it to purchase and claim the environmental attributes of SAF?

Airlines as the end-users in the SAF supply chain, are not required to be certified under the sustainability certification schemes.

How is the PoS used by an airline to claim against EU ETS or CORSIA?

For EU-ETS

An airline operating flights in the EU (intra-EU or within an EU state) needs to submit an annual emissions report under EU ETS to a designated competent authority in a EU state. If SAF compliant with EU RED requirements is used on these flights in a given reporting year, the airline can use that to reduce its emissions obligations under EU ETS. The emissions from the SAF are zero-rated, i.e., the SAF is considered to have zero emissions. This claim needs to be evidenced with the purchasing record of the SAF which is a PoS issued under the EU RED certification scheme. The PoS does not need to be included in the annual submission but the airline has to keep it to prove the use of the EU RED-compliant SAF in case of an EU ETS verifier audit.

For CORSIA

An airline operating international flights from a CORSIA-participating State to another CORSIA-participating State needs to make an annual emissions report on its CO_2 emissions from these flights. This report is submitted to the State authority where the airline is based. If SAF that is compliant with CORSIA's sustainability criteria is used on these flights, they can be claimed as CORSIA-eligible fuel to reduce the airline's emissions offset obligation. The actual emissions reduction to be claimed will depend on the GHG emissions reduction rate reflected in the PoS of the CORSIA-compliant SAF. As it currently stands, the PoS is required to be submitted together with the annual emissions report as evidence of use of CORSIA-compliant SAF.

For airlines with a SAF supply contract with a supplier, when would the airline expect to receive the PoS document from the supplier?

The supplier should be able to provide to the airline the PoS for a batch of SAF once the batch has been delivered into the storage tank of the airport that is designated as the delivery point in the contract.

GLOSSARY

Accreditation Body: An organization responsible for accrediting and overseeing Certification Bodies that assess and verify the sustainability performance of SAF producers, feedstock suppliers, and other entities within the SAF supply chain. Accreditation bodies play a crucial role in ensuring the integrity, credibility, and consistency of SAF sustainability certification by evaluating the competence, impartiality, and compliance of Certification Bodies with recognized accreditation standards and requirements. Accreditation bodies are established in many economies with the primary purpose of ensuring that Certification Bodies are subject to oversight by an authoritative body (International Laboratory Accreditation Cooperation 2023).

Book and Claim: A chain of custody model in which the administrative record flow is not necessarily connected to the physical flow of material or product throughout the supply chain. The model allows organizations to claim and trade the environmental benefits associated with the production and use of SAF while the physical transfer and consumption of the fuel can happen with another entity. This is facilitated by the issuance, trading, and retirement of certificates or credits representing the environmental attributes of the SAF.Certified Entity: An organization, facility, or entity that has undergone assessment, verification, and certification by an accredited certification body to demonstrate compliance with established sustainability criteria and standards for the production, processing, or distribution of SAF.

Certification Body: An independent, third-party organization that handles the certification process, including the assessment of the individual economic operator's compliance with the requirements of the certification schemes. A certification body is authorized by the certification scheme's owners to issue certificates of compliance to economic operators, provided the operators comply with the requirements defined under the certification scheme.

Certification Scheme: A program or initiative established to assess, verify, and certify the sustainability performance of products, processes, or organizations against specific sustainability criteria and standards.

Certification Scope: The scope of certification as defined by the product(s) for which the certification is granted, the sites and facilities covered by the certification; the applicable certification scheme; and the standards and other normative document(s), including their date of publication, that the product(s) comply with.

Chain of Custody: The documented process of tracking the flow of feedstocks, fuels, and associated sustainability attributes throughout the supply chain. The chain of custody ensures the traceability, transparency, and integrity of SAF from its origin through production, blending, and distribution to end-users. It involves recording and verifying the movement and transformation of materials to maintain accountability and ensure compliance with sustainability standards and certification requirements. Currently, the most common chain of custody model used for SAF is mass balance. Book and claim chain of custody is also emerging.

CORSIA: The Carbon Offsetting and Reduction Scheme for International Aviation is a global market-based measure developed by the International Civil Aviation Organization (ICAO), to address greenhouse gas emissions from international aviation. It aims to achieve carbon-neutral growth in international aviation by requiring airlines to offset any increase in carbon emissions above a baseline level.

CORSIA Eligible Fuel (CEF): Fuel including SAF that meets the specific sustainability criteria and standards established by the International Civil Aviation Organization (ICAO) for use in the CORSIA scheme.

Default Value: A figure derived from a typical value by the application of pre-determined factors and that may, under certain circumstances be used in place of an actual (calculated) value.

Economic Operator: Any entity involved in the production, processing, distribution, trading, or use of SAF within the supply chain.

EU ETS: A greenhouse gas emissions trading system (ETS) is a market-based mechanism designed to reduce greenhouse gas (GHG) emissions by establishing a cap on overall emissions and allowing regulated entities to buy and sell emissions allowances or credits. The European Union ETS is a key policy instrument of the European Union to combat climate change and aviation is one of the sectors included.

EU RED: The European Union Renewable Energy Directive is the legal framework for promoting the use of energy from renewable sources and increasing the share of renewable energy in the EU's overall energy consumption. The Directive sets binding targets for EU Member States to achieve a certain proportion of renewable energy in their final energy consumption. Under EU RED, biofuels, including those used for aviation, are subject to sustainability criteria to ensure that they contribute to greenhouse gas emission reductions and meet certain environmental and social standards.

Greenhouse Gas (GHG) emissions: Gases emitted into the atmosphere, either naturally or as a result of human activities. These gases trap heat in the Earth's atmosphere, leading to the greenhouse effect, which contributes to global warming and climate change. For air transport, GHG emissions refer primarily to CO2 emissions arising from the production, distribution and combustion of aviation fuel.

GHG intensity: In the context of SAF, it is a key metric for assessing the environmental performance and sustainability of SAF. It allows to evaluate the extent to which SAF reduces greenhouse gas emissions relative to conventional jet fuel. The calculation of GHG intensity for SAF involves determining the total lifecycle greenhouse gas emissions associated with SAF production, including direct emissions from feedstock cultivation, processing, and conversion into fuel, as well as indirect emissions from energy consumption, transportation, and other ancillary processes. These emissions are then divided by the volume or energy content of SAF produced or consumed to obtain the GHG intensity.

GHG Protocol: An international standard for corporate accounting and reporting of greenhouse gas emissions, which is an initiative managed by World Resources Institute and World Business Council for Sustainable Development. Under this standard, three “scopes” are defined for the purposes of greenhouse gas (GHG) emission accounting and reporting:

Scope 1: Direct GHG emissions, including from the combustion of fuel.
Scope 2: Electricity indirect GHG emissions.
Scope 3: Other indirect GHG emissions, including emissions associated with business travel.

Group Certification: A certification model where multiple entities within a defined group or organization are certified collectively under a single certification process. This approach allows smaller entities, such as SAF producers or feedstock suppliers, to benefit from certification by leveraging shared resources, expertise, and compliance efforts within the group. The group seeking certification is defined based on common characteristics, such as ownership structure, organizational affiliation, geographic location, or operational scope. The group may include SAF producers, feedstock suppliers, blenders, distributors, or other entities involved in the SAF supply chain.

Indirect Land Use Change (ILUC): A phenomenon where the production of biofuels, including Sustainable Aviation Fuel (SAF), indirectly leads to changes in land use patterns, typically resulting in increased deforestation, land conversion, or displacement of agricultural activities.

Land Use: All the arrangements, activities, and inputs undertaken in a certain land cover type (a set of human actions) or the social and economic purposes for which land is managed (e.g., grazing, timber extraction, conservation) (GHG Protocol, Oct 2006).

Mass balance: A chain of custody model that allows a particular consignment of renewable fuels, SAF in this context, to be blended with other consignments. At the point of entry, the consignment is treated the same as

other consignments in the system if the total volume in the system is maintained and the ownership of participating entities are recorded. The mass balance approach allows for flexibility in blending ratios, enabling SAF producers to mix different feedstocks and optimize production efficiency.

ReFuelEU: A legislative proposal introduced by the European Commission as part of the Fit for 55 package that aims to align the European Union's climate and energy policies with its target of reducing net greenhouse gas emissions by at least 55% by 2030. ReFuelEU is focused specifically on the aviation sector and aims to promote the use of SAF to reduce the carbon intensity of aviation and mitigate the sector's environmental impact. ReFuelEU introduces a mandatory blending obligation requiring aviation fuel suppliers to blend a minimum share of SAF into the jet fuel they provide to airlines operating in the European Union.

Surveillance Audit: A limited evaluation, where a participating Economic Operator in a Certification Scheme is evaluated against a limited number of standards and procedures. This audit is part of the ongoing monitoring and compliance activities to ensure that certified entities continue to meet the requirements of the certification standards over time.

Sustainable Aviation Fuel (SAF): SAF refers to the synthetic blending component produced from sustainable feedstock according to the requirements spelt out in the Annexes of ASTM Standard Specification D7566 for Aviation Turbine Fuels Containing Synthesized Hydrocarbons latest issue. The synthetic blending component needs to be blended with conventional aviation fuel and the subsequent SAF blend shall meet the same specifications for conventional aviation fuel. For SAF produced using the co-processing pathway, SAF refers to the proportion of the fuel that contains sustainable material.

Sustainability Certification Schemes (SCS): Under the ICAO CORSIA framework, certification schemes are officially called SCS. SCS is often interchangeably used to refer to the organization that offers the certification scheme.

Sustainability criteria: A set of requirements as to the sustainable quality of the SAF and its sustainable production and supply, which must be fulfilled for the SAF to be eligible for a certain certification scheme, financial incentive program, carbon reduction program, or legislative requirements such as those imposed by regulatory authorities like the European Union and ICAO.

Union Database (UDB): A central repository or database for biofuels and bioliquids used for tracking and monitoring compliance with the sustainability criteria outlined in the Renewable Energy Directive and the Fuel Quality Directive (FQD) within the European Union. It is a key component of the EU's renewable energy regulatory framework, providing transparency, accountability, and oversight of renewable energy production processes and sustainability performance. The Union database is being upgraded to be able to track and monitor compliance with SAF mandates on fuel suppliers under ReFuelEU.

Appendix I: Data Elements in a PoS

A certified entity using its own PoS template must ensure that the PoS contains at least the following information:

Transaction Information

- Unique PoS ID
- Delivery Note number
- Date of issuance
- Date of shipment
- Date and place of physical loading entry
- Date and place of physical loading exit

Supplier/Customer Information

- Name / Address of supplier
- Name / Address of customer of outgoing material
- Name / Address of last production/processing site
- If applicable: Name/Address of the third party managing the previous production/processing site

Certification Information

- Name of the certification scheme (i.e. ISCC CORSIA, RSB ICAO CORSIA, ISCC EU, RSB EU RED, ISCC PLUS, RSB Global)
- Name and Valid Certificate Number of Certification Body
- Chain of Custody model used (e.g. physical segregation, identity preserved, or mass balance)
- Short claim (a concise statement regarding the environmental, social, or economic benefits of SAF)

Production information

- Product description (production process)
- Country of fuel production
- Date production plant entered into operation
- Quantity of certified product
- Energy quantity of certified product

Raw Material information

- Description of the material used to produce the product (i.e. specification of the crop, production residue, or end-of-life product that was used)
- Country of raw material origin
- Statement if the raw material is eligible as production residue or end-of-life product under the certification system
- If applicable, additional claim as allowed under the certification system (e.g. Low ILUC Risk Biomass)

Greenhouse Gas Information

- Show calculations for GHG intensity of the product

Appendix II: Additional data elements to be provided to supplement the PoS for CORSIA Eligible Fuel*

* Applicable from SAF production point onwards

DATA FIELD		DETAILS
1. Purchase date of the neat CORSIA eligible fuel		
2. Identification of the producer of the neat CORSIA eligible fuel	**(2a)**	Name of producer of the neat CORSIA eligible fuel
	(2b)	Address of the producer of the neat CORSIA eligible fuel
3. Fuel production	**(3a)**	Production date of the neat CORSIA eligible fuel
	(3b)	Production location of the neat CORSIA eligible fuel
	(3c)	Batch identification number of each batch of neat CORSIA eligible fuel
	(3d)	Mass of each batch of neat CORSIA eligible fuel produced
4. Fuel type	**(4a)**	Type of fuel (i.e., Jet-A, Jet-A1, TS-1, No. 3 Jet fuel, Jet-B, AvGas)
	(4b)	Feedstock used to create the neat CORSIA eligible fuel
	(4c)	Conversion process used to create the neat CORSIA eligible fuel
5. Fuel purchased	**(5a)**	Proportion of neat CORSIA eligible fuel batch purchased (rounded to the nearest %) *Note: If the purchased amount of CORSIA eligible fuel is less than an entire batch*
	(5b)	Total mass of each batch of neat CORSIA eligible fuel purchased (in tonnes)
	(5c)	Mass of neat CORSIA eligible fuel purchased (in tonnes) *Note: Field 5c is equal to the total for all batches of CORSIA eligible fuels reported in Field 5b.*
6. Evidence that the fuel satisfies the CORSIA Sustainability Criteria	i.e., a valid sustainability certification document (proof of sustainability)	
7. Life cycle emissions values of the CORSIA eligible fuel	**(7a)**	Default or Actual Life Cycle Emissions Value (LCEF) for given CORSIA eligible fuel, which is equal to the sum of 7b and 7c (in gCO2e/MJ rounded to the nearest whole number)

	(7b)	Default or Actual Core Life Cycle Assessment (LCA) value for given CORSIA eligible fuel (in gCO2e/MJ rounded to the nearest whole number)
	(7c)	Default Induced Land Use Change (ILUC) value for given CORSIA eligible fuel (in gCO2e/MJ rounded to the nearest whole number)
8. Immediate purchaser	**(8a)**	Name of the intermediate purchaser
	(8b)	Address of the intermediate purchaser *Note: This information would be included in the event that the aeroplane operator claiming emissions reductions from the use of CORSIA eligible fuels was not the original purchaser of the fuel from the producer (e.g., the aeroplane operator purchased fuel from a broker or a distributor). In those cases, this information is needed to demonstrate the complete chain of custody from production to blend point.*
9. Party responsible for shipping of the neat CORSIA eligible fuel to the fuel blender	**(9a)**	Name of party responsible for shipping of the neat CORSIA eligible fuel to the fuel blender
	(9b)	Address of party responsible for shipping of the neat CORSIA eligible fuel to the fuel blender
10. Fuel blender	**(10a)**	Name of the party responsible for blending neat CORSIA eligible fuel with aviation fuel
	(10b)	Address of the party responsible for blending neat CORSIA eligible fuel with aviation fuel
11. Location where neat CORSIA eligible fuel is blended with aviation fuel		
12. Date the neat CORSIA eligible fuel was received by blender		
13. Mass of neat CORSIA eligible fuel received (in tonnes)		*Note: This number may differ from the number in Field 6.c in cases where only a portion of a batch or batches are received by the blender (i.e. due to sale to intermediate purchaser).*
14. **Blend ratio of neat** CORSIA eligible fuel and aviation fuel (rounded to the nearest %)		
15. Documentation demonstrating that the batch or batches of neat		e.g., the subsequent Certificate of Analysis of the blended fuel

	CORSIA eligible fuel were blended into aviation fuel	
16.	Mass of neat CORSIA eligible fuel claimed (in tonnes)	*Note: This number may differ from the number in Field 5c in cases where only a portion of a batch or batches are claimed by the aeroplane operator*

Appendix III-A: Example Case 1 – Completed PoS Template for ISCC CORSIA

Proof of Sustainability (PoS) for CORSIA Eligible Fuels V2.0

For one batch of CORSIA eligible fuel according to the ICAO Standards and Recommended Practices, Annex 16, Volume IV, Part II, Appendix 5, Table A5-2

Unique Number of Sustainability Declaration / Batch ID number:	ABC-123
Place and date of dispatch:	CEF producer site, Example Street 123, 789 Ontario; 15 March 2024
Date of Issuance:	17. Mar 24

ISCC International Sustainability & Carbon Certification
www.iscc-system.org

Original CEF Batch Information

This information is determined by the CORSIA eligible fuel (CEF) producer and must be forwarded/reproduced by downstream entities along the supply chain with future PoS

Date of CEF production:	27 February 2024
Original CEF batch number (as determined by CEF producer):	ABC-123
Mass of original CEF batch (in mt):	10

Supplier	Recipient
Name: Example CEF producer	Name: Example CEF blender
Address: CEF producer site, Example Street 123, 789 Ontario	Address: CEF blender site, Another Example Street 456, 678 Toronto
Certification System: **ISCC CORSIA**	
Certificate Number: ISCC-CORSIA-Cert-US133-11804512	Contract Number: DEF456

1. General Information

Type of Product:	AtJ-SPK (ethanol)
Type of Raw Material	Corn grain
Additional Information (voluntary):	
Country of Origin (of the raw material):	Canada
Quantity:	10,000 mt ☐ m³ ☑ metric tons
Energy content (MJ):	440.000 MJ

2. Scope Of Certification Of Raw Material

The raw material complies with the approved CORSIA sustainability criteria (i.e., was certified under ISCC CORSIA or another CORSIA approved scheme)[1]	☑ Yes ☐ No
The raw material complies with the approved CORSIA sustainability criteria as well as additional social sustainability criteria (i.e., was certified under ISCC CORSIA PLUS)[2]	☐ Yes ☑ No
The raw material was additionally certified according to the low land use change (LUC) risk approach[3]	☐ Yes ☑ No
The raw material meets the definition of waste, residue or by-product according to CORSIA[4]	☐ Yes ☑ No

3. Life Cycle Emissions Information

Use of default core life cycle emissions value ☐ Yes ☑ No

Default induced land use change (ILUC) value (or DLUC value where applicable)[5] 29,7 gCO2eq/MJ

Actual core life cycle emissions values:

1	2	3	4	5	6	7		
10,0	+ 2,0	+ 4,0	+ 2,0	+ 8,0	+ 3,0	+ 0,0	= **29**	gCO2eq/MJ

Total life cycle emissions of the CORSIA eligible fuel (CEF): **58,7** gCO2eq/MJ

Life cycle emissions reduction of the CORSIA eligible fuel:[6]

34,0% for jet fuel (baseline: 89 gCO2eq/MJ) **38,2%** for aviation gasoline (AvGas) (baseline: 95 gCO2eq/MJ)

This form is valid without signature. By issuing this PoS, the issuing party guarantees that all information made on this Proof of Sustainability are correct, in compliance with the requirements of ISCC and CORSIA

Note: The PoS issued from SAF production point onwards is to be supplemented with a CORSIA eligible fuel form containing the data fields listed in Appendix I-A.

Appendix III-B: Example Case 2 – Completed PoS Template for RSB ICAO CORSIA

Proof of Sustainability (PoS)

Batch ID Number:	Batch 12345
Number of the Delivery Note	Invoice 54321
Date of Shipment:	09 April 2024
Date of Issuance:	17 April 2024

Supplier (name of certified operator who issue the PoS)

Name:	**Address:**
London Fuels Ltd	Address 123, London, UK

Supplier - site from which the product is forwarded (if different from the supplier above)

Name:	**Address:**

Customer

Name:	**Address:**
Belfast Aviation Ltd	Address 321, Belfast, UK

Information if site is managed by a third party (in case of warehouses, distributors centers etc); May it is not applicable

Name:	**Address:**
If the site from which the product is forwarded is managed by an external third party	

Certification Information

RSB Certification Scheme:	**Valid RSB Certificate Number:**
RSB ICAO CORSIA	4576
Certification body:	**Chain of Custody Model:**
SCS Global	Mass Balance

RSB Short claim:

RSB ICAO CORSIA

General Information

Product Description:	SAF-HEFA
Raw Material:	UCO
Country of Origin:	France
Quantity of Certified Product:	10 MT

Original Batch Producer Information (Only for SAF Producer)

This information should be reproduced along the supply chain with future PoS

Date of Original Production:	09 April 2024
Original Batch Number (Unique Number):	Invoice 54321
Mass of Original Batch (MT):	10

Original Batch Producer Information (Only for SAF Producer) This information should be reproduced along the supply chain with future PoS						
Date of Original Production:	09 April 2024					
Original Batch Number (Unique Number):	Invoice 54321					
Mass of Original Batch (MT):	10					
Only for wastes, residues and by-products (materials or products):						
Raw material is eligible as waste, residue or by-product under the RSB ICAO CORSIA certification scheme (refer to Annex III - Positive List, in RSB-STD-12-001)	☑ Yes	☐ No				
Greenhouse Gas Information						
GHG Intensity:	30	g CO2e/kg		Default value (if **no**, specify **disaggregated actual values** at item **7** below)	Yes	
GHG value contains transport emissions?	☑ Yes ☐ No	**If no:**	**Transport**	type	**Distance**	km
For final products:						
GHG Savings (g CO2 eq/MJ):			**Fossil fuel comparator (g CO2eq/MJ)**		89	
GHG Savings (%)	60		**Lower heating value (MJ/kg):**			

Note: The PoS issued from SAF production point onwards is to be supplemented with a CORSIA eligible fuel form containing the data fields listed in Appendix I-A.

Appendix III-C: Example Case 3 – Completed PoS Template for RSB EU RED

Proof of Sustainability (PoS) - version 4.0

Batch ID Number (PoS Number):	Batch 12345
Number of the Delivery Note	Invoice 54321
Date of Shipment:	09 April 2024
Date of Issuance:	17 April 2024
Date and place of physical loading en	05 April 2024 - London, UK
Date and place of physical loading ex	06 April 2024 - Belfast, UK

Supplier (certified operator who issue the PoS)

Name:	**Address:**
London Fuels Ltd	Address 123, London, UK

Supplier - site from which the product is forwarded

Name:	**Address:**
Name and address of production/storage/ transmission and distribution site(s) and site from which the product is forwarded or biomethane exit point	

Customer (buyer company)

Name:	**Address:**
Belfast Aviation Ltd	Address 321, Belfast, UK

Information if site is managed by a third party

Name:	**Address:**
Include name and address if the previous production/processing/ transmission and distribution site is managed by an external third party	

Certification Information

Certification System:	**Valid RSB Certificate Number:**
RSB EU RED	4576
Certification body:	**Chain of Custody Model:**
SCS Global	Mass Balance

RSB EU RED Short claim:

RSB EU RED Compliant SAF

General Information

Product Description:	SAF-HEFA
Raw Material:	UCO
Country of Feedstock Origin:	France
Country of Fuel production:	UK
Date production plant entered in operation (for fuel plant only)	2015
Quantity of Certified Product:	10 ton
Energy Quantity (Fuels only):	For the calculation of the energy quantity, conversion factors in Annex III to Directive (EU) 2018/2001 must be used MJ per unit
Support provided for the production of consignment	RFTO

Raw material/Fuel

Compliance with the sustainability criteria according to Article 29 (2) to (7) of Directive (EU) 2018/2001 was audited and certified?	☑ Yes	☐ No
Is the raw material a HIGH iLUC risk feedstock as defined by Delegated Act C(2019) 2055?	☐ Yes	☑ No
Is the raw material/fuel certified as LOW iLUC risk as defined under the EU RED?	☐ Yes	☑ No
Is the raw material/fuel listed in Annex IX of Directive 2018/2001/EU (see Annex VI of RSB Standard for EU Market Access)?	☑ Yes	☐ No

Raw material/Fuel		
Compliance with the sustainability criteria according to Article 29 (2) to (7) of Directive (EU) 2018/2001 was audited and certified?	☑ Yes	☐ No
Is the raw material a HIGH iLUC risk feedstock as defined by Delegated Act C(2019) 2055?	☐ Yes	☑ No
Is the raw material/fuel certified as LOW iLUC risk as defined under the EU RED?	☐ Yes	☑ No
Is the raw material/fuel listed in Annex IX of Directive 2018/2001/EU (see Annex VI of RSB Standard for EU Market Access)?	☑ Yes	☐ No

Only for wastes/residue materials and waste/residue based products:		
Does the raw material meet the EU definition for waste and residues? Note: Substances that have been intentionally modified or contaminated are not covered by this definition	☑ Yes	☐ No
Waste or animal by-product permit number (if applicable)		

Only for renewable gases		
Has the material received incentive/subsidy?	☐ Yes	☐ No
If yes, specify type of support (RES sector and country)		

Greenhouse Gas Information				
GHG Intensity:	30 g CO2eq/MJ fuel		Default value	Yes
Additional specification in case (disaggregated) default values are used (in line with Annex V and Annex VI of Directive (EU) 2018/2001):	Transported 150 miles to customer in tanker			
GHG Components in case actual values are used:	State GHG emissions value in g CO2 equivalent/MJ of fuel (for biofuels / bioliquids / biomass fuels / renewable liquid and gaseous transport fuels of non-biological origin and recycled carbon fuels) and g CO2 equivalent / dry-ton feedstock (biomass and intermediaries). (Separate values for emissions from: the extraction or cultivation of raw materials; Annualized emissions from carbon stock changes due land use change processing; transport and distribution) and Emissions savings from: soil carbon accumulation via improved agricultural management, carbon capture and geological storage; carbon capture and replacement; excess electricity from cogeneration)			
eSCA cap to be applied by biofuel producer: (emissions savings from soil carbon accumulation)	45 g CO2eq/MJ ☐	25 g CO2eq/MJ ☐		
GHG value contains transport emissions?	☑ Yes ☐ No	If no: Transport type	Distance km	
For final products:				
GHG Savings (g CO2 eq/MJ):	64.0	Fossil fuel comparator (g CO2eq/MJ)		94
GHG Savings (%)	60%	Lower heating value (MJ/kg):		

Appendix III-D: Example Case 4 – Completed PoS Template for ISCC EU

Proof of Sustainability (PoS) for Biofuels, Bioliquids and Biomass Fuels V3.0

Applies under the Renewable Energy Directive (EU) 2018/2001 (RED II)

Unique Number of the PoS: ABC-123

Date of Issuance of the PoS: 17. Mar 24

ISCC International Sustainability & Carbon Certification
www.iscc-system.org

Supplier	Recipient
Name: Example SAF producer	Name: Example SAF blender
Address: SAF producer site, Example Street 123, 789 Ontario	Address: SAF blender site, Another Example Street 456, 678 Toronto
Certification System: **ISCC EU**	
Certificate Number: EU-ISCC-Cert-XY123-12345678	Contract Number: DEF456

Address of dispatch/shipping point of the sustainable material:

☑ Same as address of supplier

Address of receipt/receiving point of the sustainable material:

☑ Same as address of recipient

Date of dispatch of the sustainable material: 17.03.24

1. General information

Type of Product:	Co-processed oil to be used for replacement of jet fuel
Type of Raw Material	Used cooking oil (UCO)
Additional Information (voluntary):	
Country of Origin (of the raw material):	Italy
Quantity:	1.000,000 mt ☐ m^3 ☑ metric tons
Energy content (MJ):	43.000.000 MJ
EU RED Compliant material[3]	☑ Yes
ISCC Compliant material (volunt.)[4]	☐ Yes
Chain of custody option (voluntary)	Mass balance
Country of biofuel production	USA
Start date of biofuel production[1]	17.02.2024
If applicable, start date of bioliquid/biomass fuel use[1,2]	

2. Scope of certification of raw material

The raw material complies with the relevant sustainability criteria according to Art. 29 (2) - (7) RED II[5]	☑ Yes ☐ No
The agricultural biomass was cultivated as intermediate crop (if applicable)	☐ Yes ☑ No
The agricultural biomass additionally fulfills the measures for low ILUC risk feedstocks (if applicable)	☐ Yes ☑ No
The raw material meets the definition of waste or residue according to the RED II[6]	☑ Yes ☐ No
If applicable, please specify waste or animal by-product permit number	Company-specific number for UCO
Was support for the production of the fuel or fuel precursor received?[5]	☐ Yes ☑ No
If yes, please specify support nature and scheme	

3. Greenhouse Gas (GHG) emission information

Total default value according to RED II applied ☐ Yes ☑ No

E =	Eec	+	El	+	Ep	+	Etd	+	Eu [7]	Esca	-	Eccs	-	Eccr	=	35	gCO2eq/MJ
	0		0		25		10										

Allocated heat: 0 gCO2eq/MJ heat Allocated electricity: 0 gCO2eq/MJ electricity

GHG emission saving[8]:

62,8%	Biofuels for transport		
100,0%	Bioliquids/ Biomass fuels for the production of electricity	**100,0%**	Biomass fuels for the production of electricity in the outermost regions.
100,0%	Bioliquids/ Biomass fuels for the production of useful heat, as well as for the production of energy for heating and/or cooling	**100,0%**	Biomass fuels for the production of useful heat, in which a direct physical substitution of coal can be demonstrated

This form is valid without signature. By issuing this PoS, the issuing party guarantees that all information made on this Proof of Sustainability are correct, in compliance with the requirements of ISCC and the RED II, and that the biofuel or bioliquid has not already been used to fulfil a national quota obligation.