



Designing a credit transfer system for SAF

Thomas Bock, Senior System Manager & Aviation Lead,
International Sustainability and Carbon Certification (ISCC) System

Aireg Webinar 'Credible reporting of emissions reductions'

As the SAF market is set to grow, there is the need for a traceability system from feedstock to SAF use-related claims



Context & Challenge

- Airlines, logistics providers and aviation end-customers wish to purchase and claim GHG emissions reductions from SAF use
- However, they are **not covered by the existing supply chain certification systems**, which only track SAF until it is delivered to an airport (and often may stop even earlier)
- This creates the **risk of insufficient traceability of SAF transactions** and **intransparent or incorrect sustainability claims**



Potential solution: A credible SAF credit transfer system

- **Connects the physical SAF supply chains with the resulting SAF claims** by airlines, logistics providers and aviation end-customers
- Aims to ensure both **transparency and credibility for SAF claims** through
 - defining a clear and robust rule set governing certificate transfers and registry use
 - the use of a secure digital registry for all SAF credit transfers and resulting claims

Credible system design should follow a set of key guiding principles



SAF is certified to meet stringent, internationally recognized sustainability criteria

For example: Only SAF that is certified under CORSIA or EU RED is eligible
(possibility to include certification under other schemes, e.g., in the US, where applicable)



Alignment with regulatory frameworks and established GHG accounting frameworks

System design follows requirements defined by regulators (in regulated markets) as well as, where possible, the principles of established GHG Protocol accounting standards (in voluntary markets)



Features safeguards to help mitigate the risk of double counting

Audit & verification process for users of the system
Public retirement tables
Communication between databases/registries



Practical to incorporate into existing (certification) processes for users of the system

Simple integration into existing certification processes (for SAF producers/suppliers, certification bodies)
General ease of system use

A comprehensive system should include both system rules and the supporting IT infrastructure

Example ISCC

ISCC Credit Transfer System

ISCC Credit Transfer System Document



Defines

- **Guiding Principles** for the System
- Requirements for **organisations to participate**
- Requirements for **credit registration, transfer and retirement**
- Requirements for **audit & verification**

ISCC Credit Transfer Registry



Standardized electronic database for

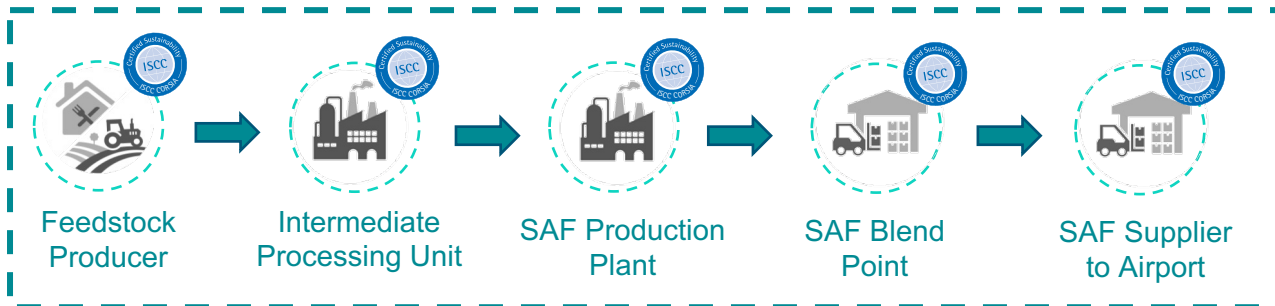
- **Digitally tracking credit registration, transfer and retirement**
- **Generating documentation to substantiate emission reductions claims by system users**
- **Providing public information** about SAF claims made through the Registry

How could it work? A credible system should build on robust upstream supply chain certification of the SAF

Example ISCC

Supply chain certification

(e.g. under an EU RED or CORSIA approved scheme, on mass balance basis)



Supply chain certification ...



follows the physical flow of sustainable material from feedstock to blending or supply to the airport, lending credibility to all claims made based on that SAF



ensures feedstock production adheres to strict sustainability criteria

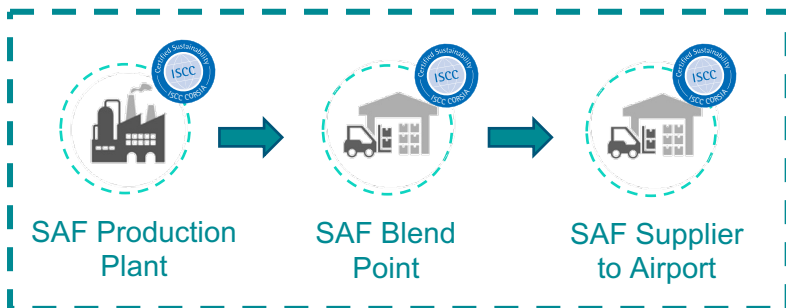


ensures that GHG emissions are consistently and transparently accounted for in the SAF's whole life cycle

After blending or delivery to the airport, the SAF supplier enters key information on the SAF in the Registry

Example ISCC

Supply chain certification



SAF supplier submits sustainability information of SAF to Registry



ISCC Registry



Information to be submitted includes

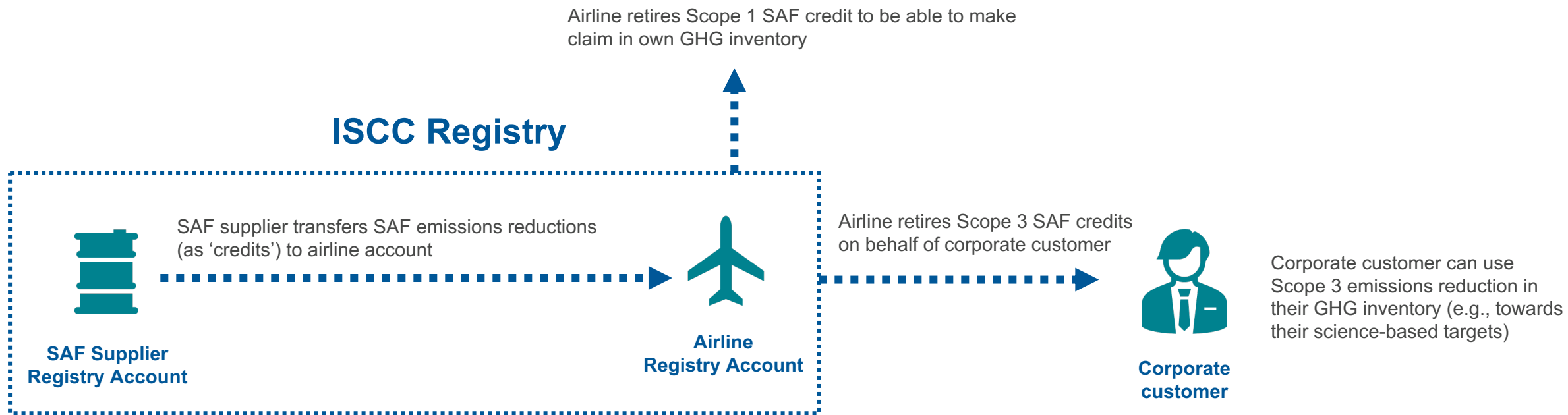
- SAF type + feedstock
- Sustainability certification
- Life cycle emissions
- Information on SAF production and blending
- Airport to which SAF was delivered
- Information on any SAF production incentives used
- Etc.

Providing key info on SAF in the Registry

- ✓ provides transparency to airlines, logistics providers and end-customers around the type of SAF they are sourcing and/or benefiting from
- ✓ ensures credit transfers come with the needed data on the underlying SAF to make valid claims

In the Registry, all transactions of SAF emissions reductions are tracked and allocated properly to the beneficiaries

Example scenario



Retirement Declaration



Unique Declaration ID: 2629
 Date of Issuance: 18-09-2023

In accordance with the rules set by the International Sustainability and Carbon Certification (ISCC) System, the following has been retired from the ISCC Credit Transfer Registry:

Type of product	Amount of retired credits		GHG emissions reduction (in metric tons of CO2eq)*
	Scope 1	Scope 3	
SAF (HEFA)	0.00	10.00	33.04
Retired by	Retired for		Type of emissions reduction claim
Sample_SAF supplier	Sample corporate customer		Scope 3

Sustainability information

Related unique ID in ISCC registry	1994-ABC-125
Quantity of neat, certified SAF (in mt)	10.00
Energy content of neat, certified SAF (in MJ)	440000.00
Name of neat SAF producer	Sample producer
Date of neat SAF production	12-09-2023
Sustainability certification of SAF	EU RED II ISCC EU
Feedstock	Used cooking oil (UCO)
Country of origin of feedstock	France
Life cycle GHG emissions value (in g CO2eq/MJ)	13.90
CORSIA fossil reference value (in g CO2eq/MJ)	89.00
GHG emission reduction compared to CORSIA fossil reference value (in %)	84.38
EU RED II fossil reference value (in g CO2eq/MJ)	94.00
GHG emissions reduction compared to EU RED II fossil reference value (in %)	85.21
Control point to which SAF was delivered	Charles de Gaulle Airport
Name of aeroplane operator responsible for direct, i.e. Scope 1, Sample airline emissions	
Information on SAF incentives used	No SAF incentives used

Please scan the QR Code or refer to the following link to validate this retirement declaration and its content in a secure environment on the ISCC registry:
<https://saf.iscc-system.org/p/verify/qrcode/35184372088947551>



*Please note that the GHG emissions reduction has been calculated by applying the CORSIA fossil reference value of 89 g CO2eq/MJ.

Upon credit retirement, the Registry will issue a retirement declaration

- **Retirement of SAF credits**
 - refers to the act of removing SAF credits from a user’s account (and therefore from circulation) within the ISCC Registry,
 - with the intention of claiming the sustainability characteristics (e.g., the GHG emissions reduction) associated with those credits
- **The retirement declaration**
 - attributes a certain emission reduction claim to a particular entity
 - includes key sustainability information to substantiate a claim
 - includes a link & QR code that lead to a secure validation section (e.g. for auditors to check)
 - continues to be available in the Registry user’s account
- Upon retirement, **aggregated information on the retired credits will be published** in a public retirement table (under development and discussion)

SAF claims made via the Registry should be published via a public retirement table to enhance transparency and overall trust in the system

Public Retirement Table for SAF Credits

Welcome to the Public Retirement Table of the ISCC Credit Transfer Registry!

Example ISCC Registry

This table provides key information on all retirements of SAF credits made through the ISCC Registry. Through this, ISCC aims to inform third parties, enhancing overall stakeholder trust in claims made under the ISCC Credit Transfer System.

1 to 20 of 24

Date of Retirement	Retired by	Retired for	Type of credits retired	Quantity of credits retired scope 1*	Quantity of credits retired scope 3*	GHG emissions reduction** (in mt CO2eq)	Type of product	Feedstock category
18-09-2023	Sample_SAF supplier	Exemplary airline	Scope 1	5.00	0.00	16.24	SAF (HEFA)	Waste/residue
18-09-2023	Sample_SAF supplier	Yet another sam...	Scope 1	1.00	0.00	3.17	SAF (HEFA)	
18-09-2023	Sample_SAF supplier	Some other cor...	Scope 3	0.00	1.00	3.17	SAF (HEFA)	
18-09-2023	Sample_SAF supplier	Other sample ai...	Scope 1	10.00	0.00	32.91	SAF (HEFA)	Waste/residue
18-09-2023	Sample_SAF supplier	Corporate cust...	Scope 3	0.00	10.00	32.91	SAF (HEFA)	Waste/residue

Auditing of system participants is crucial to ensure credibility of SAF claims, but needs to be balanced when it comes to administrative burden

SAF Supplier

- Audited under established supply chain certification systems by independent third-party certification bodies
- Audit focus in correct registration of credits and avoidance of double issuance/selling of SAF volumes and SAF emissions reductions
- Must transparently track all SAF transactions in the Registry

Airline

- Must transparently track all SAF transactions in the Registry
- Transparent GHG disclosure and audit by third-party verification bodies

Logistics provider (e.g., freight forwarder)

- Must transparently track all SAF transactions in the Registry
- Transparent GHG disclosure and audit by third-party verification bodies

Aviation end-customer (mostly corporate customers)

- Must transparently track all SAF transactions in the Registry
- Transparent GHG disclosure and audit by third-party verification bodies

ISCC, Neste and DHL Group pilot new system for credible reporting of emission reductions in air travel and transport

10/06/2023, 09:55 AM CEST

This newly developed system provides full traceability of SAF transactions and related sustainability benefits.



The system is designed to align closely with requirements set by the Science Based Targets initiative's (SBTi) aviation guidance for SAF use in addressing organizations' value chain (Scope 3) emissions.

Source: [Group.dhl.com](https://www.group.dhl.com)

In 2023, Neste and DHL first piloted the new ISCC Credit Transfer System

1. Neste utilized one of its **ISCC EU certified SAF deliveries** to DHL Group's airline EAT and **registered the environmental attributes of those SAF volumes**, such as the emission reductions achieved, as "credits" in the ISCC Registry
2. This enabled EAT, the airline using the SAF, to claim a reduction in its own direct emissions (Scope 1)* and the corresponding **Scope 1 credit was retired on behalf of EAT** ensuring the credit cannot be used again. The **Scope 3 credit** for the reduction in indirect emissions achieved was **transferred to DHL Groups' account in the ISCC Registry**
3. As part of their GoGreen Plus lower-emission transport services to its customer, **DHL Group was then able to credibly verify the emission savings in the customers' value chain** Scope 3 emissions achieved and the corresponding SAF credit was subsequently retired.



Final thoughts & outlook

- Overall, **market is still rapidly developing**, including both regulatory and voluntary frameworks
- Industry is moving towards consensus: **Robust and standardized system needed to help market scale-up of SAF**
- **Use of a standardized IT platform, i.e., a Registry**, is needed to be able to transparently track and trace SAF transactions and claims
- Several initiatives and front runners show that **practical application of such SAF credit transfer systems is possible**
- **Communication between different Registries will be key** to avoid double counting issues and provide a standardized environment for system users
- In the voluntary market, **alignment with key standards and guidelines** (such as GHG Protocol, Science-Based Targets) is **key** for corporate customers, but partly challenging
- **Application in regulated markets** still mostly uncertain, risk of fragmented IT solutions for compliance purposes



Thank you!

ISCC System GmbH

Hohenzollernring 72, 50672 Cologne, Germany

www.iscc-system.org

