



ISCC Certification Solutions for SAF

—

Spotlight on North America

Thomas Bock, System Manager & Aviation Lead, ISCC System
Regional Stakeholder Meeting North America, 14 November 2023

To get to net-zero in aviation, a huge scale-up of SAF will be needed

- 5,000 - 7,000 production facilities will be needed*
- Investments of 1,000 - 1,500 billion USD will be required*

* Based on ICF – Fueling Net Zero study, available [here](#)

SAF volumes in
2022

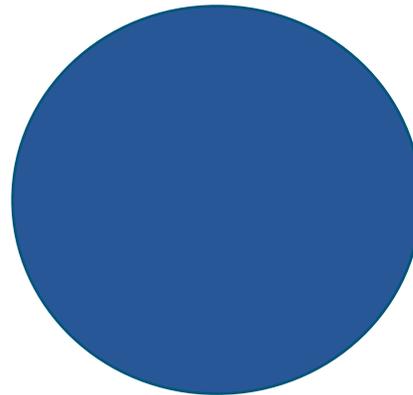


240,000
mt of SAF

Production scale-up
by more than 1,600
times necessary

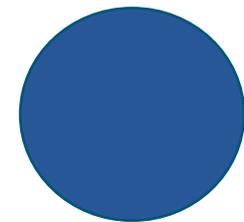


Needed SAF volumes in
2050 to reach net-zero



≈ 400,000,000
mt of SAF

For comparison:
Volume of biofuel
market in 2022



≈ 130,000,000
mt of biofuel

Many regulatory frameworks make use of certification schemes to ensure the sustainability of SAF. For NA, this includes CORSIA and the US IRA

Examples

ICAO CORSIA

- Offsetting scheme to ensure carbon-neutral growth of international aviation from 2020
- Airlines can use SAF to reduce their offsetting obligations under CORSIA
- Airlines can only reduce their offsetting obligations under CORSIA through SAF that is **certified under an ICAO-approved certification scheme (e.g. ISCC CORSIA)**

ReFuelEU Aviation Regulation

- Sets a mandate on fuel suppliers to supply a defined percentage of SAF to EU airports, starting 2025
- 2% of SAF in 2025, increasing to 70% by 2050
- Fuel suppliers obligated under ReFuelEU must supply SAF that is **certified under an EU RED II-approved certification scheme (e.g. ISCC EU)**

UK SAF Mandate (in development)

- SAF mandate set to start in 2025, requiring 10% SAF blend by 2030
- Under the SAF mandate, UK foresees **use of certification schemes** similarly to those currently accepted under the UK RTFO

SAF blender's tax credit under the US IRA*

- Grants tax credits for SAF that achieves a life cycle emissions reduction of at least 50%
- Mention of **ICAO-approved certification schemes** under CORSIA for demonstrating compliance of SAF (e.g. ISCC CORSIA)

EU Emissions Trading System

- Requires airlines to buy and surrender allowances for each metric ton of CO₂ emitted on intra-EU flights
- Airlines can use SAF to reduce the allowances they will need to buy and surrender
- Airlines can only account for the use of SAF with zero emissions if it is **certified under an EU RED II-approved certification scheme (e.g. ISCC EU)**

UK Emissions Trading System

- Under the UK ETS, similarly to the EU ETS, airlines can use SAF to reduce the allowances they will need to buy and surrender
- Airlines can only account for the use of SAF with zero emissions if it is **certified under an RTFO-approved certification scheme (e.g. ISCC EU)**

*US IRA = US Inflation Reduction Act



In addition, there is growing demand for SAF from the voluntary market. Certification of SAF can give added credibility to voluntary SAF use



SCIENCE
BASED
TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

- A growing number of corporations commit to ambitious climate targets
- **The Science Based Targets initiative (SBTi)** has become the industry-leading platform for corporate climate action
- Currently, over **6,000 companies** are working with SBTi
- **SBTi recognizes that SAF can be a key lever** in reducing corporations' Scope 3 air transport-related GHG emissions
- To **report the use of biofuels, and SAF in particular, as progress** against science-based targets, SBTi has established a stringent set of sustainability criteria that must be fulfilled
- **ISCC CORSIA certification is explicitly recognized by SBTi** as ensuring compliance with these criteria for SAF*

*Please refer to: SBTi Aviation Sector Guidance, v1.0, August 2021, available via:
https://sciencebasedtargets.org/resources/files/SBTi_AviationGuidanceAug2021.pdf

SAF can be (and is!) certified under all three ISCC certification systems. System choice depends on regulatory compliance and/or customer needs

ISCC EU



- Officially approved by the EU Commission
- Used to demonstrate compliance with the **EU RED II sustainability criteria**
- ISCC EU certified SAF can be claimed under **EU ETS, UK ETS and**, once in effect, **ReFuelEU Aviation**

ISCC PLUS



- Applicable for mostly **voluntary markets**
 - Energy and renewable fuels outside the EU RED II market
 - Industrial applications
 - Food and feed markets
- Often used for SAF claims in **non-regulated markets**

ISCC CORSIA



- Officially approved by ICAO
- Used to demonstrate compliance with the **ICAO CORSIA sustainability criteria**
- ISCC CORSIA certified SAF can be claimed under **CORSIA**
- ISCC CORSIA is referred to in the IRS guidance for the **US IRA's SAF blender's tax credit**
- ISCC CORSIA certified SAF explicitly recognized by the **Science-Based Targets Initiative (SBTi)**

All three ISCC systems are largely harmonized.

Combined audits provide easier access to different markets

ISCC EU



ISCC PLUS



ISCC CORSIA



Multi-stakeholder driven



Quality and risk management



Integrity Program



Requirements for certification bodies



Requirements for conducting audits



Registration and certification process

ISO-accredited certification bodies provide auditor capacities all over the world, including for SAF. ISCC is working to increase capacities in NA



European-based certification bodies

- **59 certification bodies** currently cooperating with ISCC on a world-wide level
- **1300+ auditors** trained
- ISCC cooperating auditors are qualified via comprehensive **ISCC Trainings** (ISCC Academy)

As the SAF market begins to develop, more and more companies choose ISCC for SAF certification



Brazil's Raizen gets certification for ethanol-based SAF

August 21, 2023 — 09:03 am EDT

"The ISCC CORSIA Plus certification issued by the International Civil Aviation Organization (ICAO) proves that the ethanol produced in Piracicaba complies with international requirements to produce SAF," Raizen said.

Source: Reuters

DHL GF and IAG Cargo partner on SAF

13 / 06 / 2023

DHL said that SAF being purchased is certified by International Sustainability & Carbon Certification (ISCC) and produced from used cooking oil and food waste and has at least 80% lower lifecycle emissions than conventional jet fuel.

Source: Air Cargo News



Source: Greenairnews.com

Examples of recent press releases

Air bp makes first ISCC EU sale of co-processed SAF to LATAM Cargo from its Castellon refinery in Spain

By Christopher Surgenor · 8 March 2023 · 3 min read

Montana Renewables Achieves ISCC CORSIA Certification for SAF

NEWS PROVIDED BY
Calumet Specialty Products Partners, L.P. →
03 Aug, 2023, 07:30 ET



Source: PR Newswire

This year, ISCC's recognition under the CORSIA scheme was extended by ICAO to cover CORSIA's *post-pilot* phase



The ISCC CORSIA certification system was first recognized by ICAO in November 2020, applicable to **CORSIA's pilot phase from 2021 to 2023.**

In June 2023, ISCC CORSIA's recognition was extended by ICAO to cover **CORSIA's post-pilot phase starting in 2024.**

Economic operators and airlines can **demonstrate compliance with the CORSIA Sustainability Criteria for CORSIA Eligible Fuels** by applying the ISCC CORSIA Certification System.



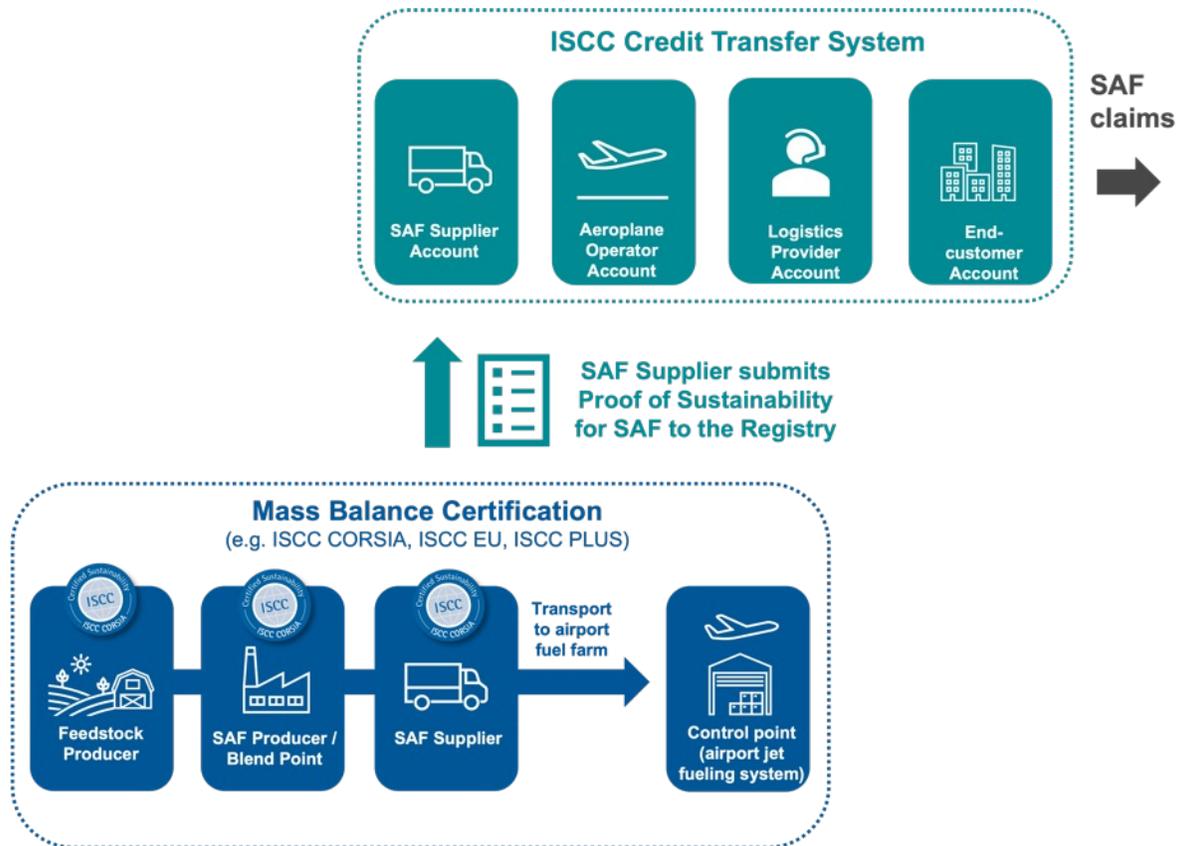
Name of the Sustainability Certification Scheme	Date of approval	Website	Scope of approval
International Sustainability and Carbon Certification (ISCC)	16 Jun. 2023	https://www.iscc-system.org/about/sustainable-aviation-fuels/corsia/	Certification of CORSIA Sustainable Aviation Fuels economic operators covered by Chapters 1 and 2 of the ICAO document "CORSIA Sustainability Criteria for CORSIA eligible fuels"

As of today, 72 economic operators are ISCC CORSIA certified

Type of operation	No. of ISCC CORSIA certified economic operator types
Trader/Trader with Storage	55
Processing Unit	25
Collecting Point (waste/residues)	11
Point of Origin (waste/residues)	7
First Gathering Point (primary crops/residues)	4
Farm (primary crops/residues)	1

Numbers as of 12 November 2023.
Please note that each certificate may be issued for more than one type of operation.

ISCC developed the ISCC Credit Transfer System to ensure transparent and credible SAF claims in voluntary markets



- Current certification systems do not cover airlines and corporate end-customers, creating a lack of transparency and leading to **potentially incorrect sustainability claims for SAF in the voluntary market**
- The ISCC Credit Transfer System **connects the certified physical SAF supply chains with the resulting SAF claims** by airlines and end-customers (i.e., Scope 1 and 3 claims)
- The System aims to ensure both **transparency and credibility for SAF claims** through
 - defining a clear set of rules around SAF sustainability, credit transfers and SAF claims
 - the use of a secure digital registry for all SAF credit transfers and resulting claims
- The ISCC Credit Transfer System has entered the **public consultation phase** (please see [here](#)) and is currently **tested in pilot transactions**



SAF certification offers opportunities for economic operators in North America

- Broad agreement in aviation industry that SAF scale-up is needed, signaling a **clear commitment towards getting to net-zero**
- **Growing number of regulatory frameworks** are coming online, providing **incentives** (e.g. tax credits) **and/or demand certainty** (e.g., through fixed SAF mandates)
- **Demand for SAF is also picking up in voluntary markets** (e.g., with companies committing to Science Based targets)
- **Many feedstocks of relevance for North America are eligible under various frameworks** (including prevalent crop and waste / residue feedstocks)
- **ISCC certification** of feedstocks, intermediate products and SAF **can open the door to many of the regulated markets**
- **50+ feedstock producers** in the US and Canada are already ISCC EU/PLUS certified, thus **in a good position for CORSIA certification**
- **New certification approaches**, such as low land use change risk certification, **can help access specific premium markets**

ISCC is working together with major players in the aviation and SAF space. New members very welcome!

- Many frontrunner organizations active in the field of SAF are **ISCC Association Members and System Users**
- ISCC is part of the **CAEP Fuels Task Group within ICAO** that is working on the further development of CORSIA eligible fuels
- ISCC is an active partner of **ICAO's "ACT-SAF" programme**, helping States in developing their full potential in SAF deployment
- ISCC is supporting with **capacity building in moving towards CORSIA compliance for SAF**
- With its members, ISCC is conducting pilot projects on a variety of topics, including for **innovative feedstocks, smart agricultural practices and Power-to-Liquids**





Thank you!

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