

ISCC SAF Certification: Elevating Standards, Powering Sustainable Flight

Adam Kirby, Sustainability Manager, ISCC System GmbH ISCC Regional Stakeholder Meeting Southeast Asia, 24 October 2024, Jakarta

ISCC is Working Together with Major Players in the

Aviation and SAF Space

 Many frontrunner organizations active in the field of SAF are ISCC System Users and Association Members

- 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
- With its members, ISCC is conducting pilot projects on a variety of topics, including for innovative feedstocks, smart agricultural practices, voluntary claims, and Power-to-Liquids





As the Global SAF Market Expands, More and More Companies Choose ISCC for Certification

Examples of recent press releases

FS 1st Ethanol Producer to Receive ISCC CORSIA Low LUC Risk Certification for SAF Production

Monday, 04 March 2024



RE

FS is the first Brazilian corn ethanol industry to receive the ISCC international certification (International Sustainability & Carbon Certification), attesting that its production process meets international requirements for the production and supply of ethanol and corn oil for the production of SAF (Sustainable Aviation Fuel). Furthermore, FS is the first ethanol producer in the world to obtain Low LUC Risk certification in collaboration with one of its second-crop corn suppliers, GGF Group.

So urce: Rene wable Energy Magazine

HD Hyundai Oilbank to produce biofuels using coprocessing method

2024.05.29 08:23:13







The company's biofuels produced through this method have already received three types of International Sustainability & Carbon Certifications (ISCC): ISCC EU, ISCC CORSIA, and ISCC PLUS.

Source: Pulse







Pertamina Patra Niaga achieves ISCC



certification for sustainable aviation fuel

PT Pertamina Patra Niaga, a subsidiary of State oil and gas company PT
Pertamina, has strengthened its commitment to sustainability by securing the
International Sustainability and Carbon Certification (ISCC) for its Sustainable
Aviation Fuel (SAF) under the Carbon Offsetting and Reduction Scheme for
International Aviation (CORSIA) and the Renewable Energy Directive-European
Union (RED-EU).

Montana Renewables Achieves ISCC CORSIA Certification For SAF

BY CALUMET SPECIALTY PRODUCTS PARTNERS L.P.

Montana Renewables LLC, the largest producer of sustainable aviation fuel (SAF) in North America, announced today that it received its Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) certificate via the International Sustainability and Carbon Certification (ISCC) and as developed by the International Civil Aviation Organization (ICAO). The ISCC CORSIA certification is another step in the transformation of the Great Falls facility into a premier SAF producer in North America.

"Montana Renewables is the SAF leader in North America and this certification further cements our first mover status in this business," said Bruce Fleming, CEO, Montana Renewables. "The ISCC CORSIA designation is another milestone on our journey as we continue on the path to reduce the carbon footprint of the aviation industry."



So urce: Bio di esel Magazin e

Why Sustainability Certification?

Certification can play a key role in ensuring that SAF production is sustainable and leads to quantifiable GHG emission reductions

Sustainability certification aims to ensure:



Sustainability in feedstock/ fuel production and waste generation



Traceability and chain of custody through supply chains



Ensuring GHG emissions reductions along supply chains



A Wide Range of Regulatory Frameworks Utilize Certification to Ensure SAF Sustainability

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 IIapproved 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 RTFOapproved certification scheme (e.g. ISCC EU)



*US IRA = US Inflation Reduction Act

Certifying SAF Worldwide: ISCC's Three Systems Meeting Global Market Demands

ISCC EU



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

ISCC PLUS







- Applicable for mostly voluntary markets
 - Energy and renewable fuels outside the EU RED market
 - Industrial applications
 - · Food and feed markets
- Often used for SAF claims in nonregulated 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 certified SAF explicitly recognized by the Science-Based Targets Initiative (SBTi)



228* Organizations Certified Under the ISCC CORSIA

Standard





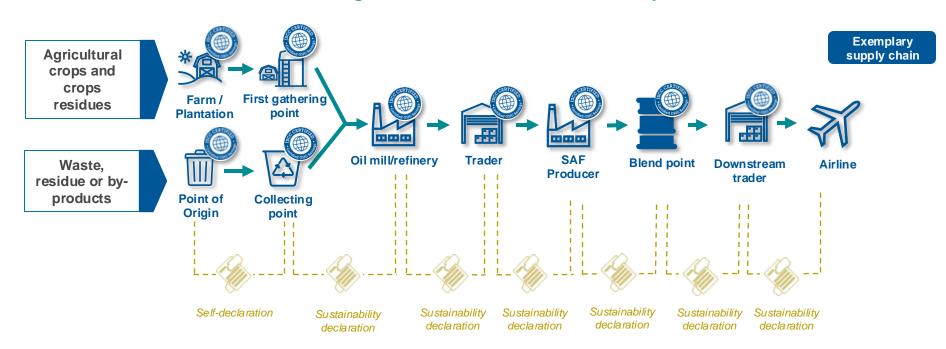






Each Supply Chain Element is Certified to Ensure Full Traceability

Information is forwarded through the chain via sustainability declarations

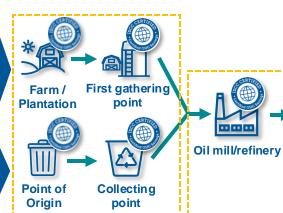




GHG Emissions from Each Step are Calculated Along the Supply Chain to Determine Carbon Intensity

Agricultural crops and crops residues

Waste, residue or by-products



Exemplary supply chain



Feedstock production and collection

- Emissions from feedstock cultivation
- Emissions from direct land use change (DLUC)
- Emission savings from soil carbon accumulation
- Emissions from upstream transport

Processing; upstream and downstream transport and distribution

- Emissions from processing
- Emission savings from carbon capture and storage

Trader

Emissions from transport and distribution (upstream and downstream)

SAF

Producer

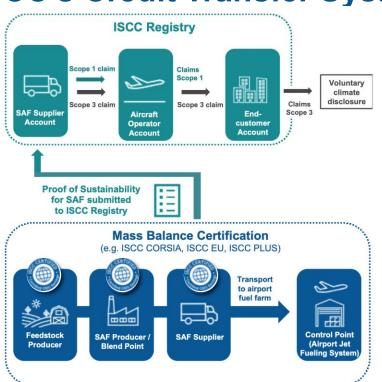
Emissions from combustion



The GHG emissions value calculated at each step must be audited and verified by a certification body before it can be forwarded in the supply chain.



Ensuring Trust in SAF Claims: The Innovation Behind ISCC's Credit Transfer System for the Voluntary Market



- The ISCC Credit Transfer System connects certified physical SAF supply chains with the resulting SAF claims by airlines and end-customers (i.e., Scope 1 and 3 claims)
- Functions as an extension of the current supply-chain certification system
- 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 been officially released and is growing! More info can be found on the ISCC website



The Two Major Elements of the ISCC Credit Transfer System

ISCC Credit Transfer System



Defines

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

Secure and standardised database for

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

The ISCC Credit Transfer System Follows a Set of Key Guiding Principles



SAF is certified to meet stringent, internationally recognized sustainability criteria

Only SAF that is EU REDII (e.g. ISCC EU), CORSIA (e.g. ISCC CORSIA) or ISCC PLUS certified is eligible for entering the system



Alignment with established GHG accounting frameworks and industry where possible

System design largely follows principles laid down in the Science-based targets initiative's (SBTi) aviation sector guidance and GHG Protocol accounting standards



SAF is additional, and generates atmospheric benefits beyond mandated/ incentivized volumes

Only SAF volumes that have not been counted towards SAF mandates or counted under incentive schemes (e.g. 'opt-in') are eligible for entering the system



Practical to incorporate into existing ISCC certification processes

Simple integration into existing ISCC certification process (SAF suppliers, certification bodies)

Ease of registry use, import/export functions



Features safeguards to help mitigate the risk of double counting

Credit registrations audited by third-party certification bodies

Public retirement table

Communication between registries





SAF Certification Offers Opportunity for Operators in Southeast Asia

- Alignment in the aviation industry that SAF scale-up is needed, signaling a clear commitment towards getting to net-zero
- Growing number of regulatory frameworks coming online, providing incentives (e.g. tax credits) and/or demand certainty (e.g., through SAF mandates)
- Many feedstocks of relevance for Southeast Asia 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
- New certification approaches, such as low land use change risk certification, can help access specific premium markets
- Demand for SAF is expanding in voluntary markets (e.g., with companies committing to Science Based targets)



Thank you!

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