Max Eichelbaum:
Sustainable Aviation Fuel (SAF) "Book & Claim" – Decoupling the Environmental Benefits from the Physical Product
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Sustainable Aviation Fuel (SAF) "Book & Claim" – Decoupling the Environmental Benefits from the Physical Product

Max Eichelbaum
Digital Solutions Manager - RSB
1. About RSB
2. Introduction to book and claim
3. RSB Book & Claim Manual requirements
4. Question & Answers
About the RSB
RSB is a collaborative network that works together to ACCELERATE the transformation to a sustainable circular and bio-based economy where climate change has been mitigated, ecosystems have been restored, and livelihoods have been enhanced.
What we do

Certification

Certification to the RSB Standard covers feedstock production, entire supply chains, and novel technologies, including fuel, biomass and material products from bio-based and recycled carbon, including fossil waste. Recognised under EU RED and ICAO CORSIA.

Implementation

Technical and strategic advice, hands-on implementation, staff training and research services at a regional and global level. We work on projects with individual partners. We also run large landscape-level projects to develop bioeconomy roadmaps with multiple partners.

Convening

Convening stakeholder groups across private sector, industry, govts, NGOs & academia) through events, working groups, platforms to define sustainability standards and best practices, generate interest for action, and drive consensus.
Holistic approach supporting our ambition to create positive impact

- Principle 1: Legality
- Principle 2: Planning, Monitoring & Improvement
- Principle 3: Greenhouse Gas Emissions
- Principle 4: Human & Labour Rights
- Principle 5: Rural & Social Development
- Principle 6: Local Food Security
- Principle 7: Conservation
- Principle 8: Soil
- Principle 9: Water
- Principle 10: Air Quality
- Principle 11: Management of Inputs & Waste
- Principle 12: Land Rights

- RSB Principles and Criteria shall apply to any primary biomass producer (e.g. oil crop farm) and industrial operator (e.g. SAF producer) along the supply chain.
- P&C are applicable when the operator’s option is the certification of “RSB compliant CORSIA eligible SAF”.

Legal
Management
Environmental
Social
Certification System

Certification body

Oversight

Accreditation and surveillance

Surveillance and oversight

Implementation of standards and requirements

Certification and verification

Oversight

Recognition

Reporting

Farm or point of origin

First collector

Refinery

Fuel supplier / blender

Final fuel user

Certification System

Certification System

Certification System
Our global membership is highly diverse

A wide range of organisations across supply chains, regions and industries
Introduction to book and claim and the RSB Book & Claim System
**INTRODUCTION TO BOOK AND CLAIM**

**Book and claim as Chain of custody model**

**Identity preservation**
- Delivers consignments physically containing 100% certified products from a uniquely identifiable source.

**Mass balancing**
- Physical product and sustainability information are coupled when they are traded between parties. Products with different sustainability characteristics can be physically mixed, but are kept administratively segregated.

**Segregation**
- Delivers consignments physically containing 100% certified products, but the exact origins of the material in the consignment cannot be traced.

**Book & Claim**
- Trade of physical products is completely decoupled from the trade of sustainability certificates.

Credit: German Energy Agency (DENA), Workshop: Traceability of Powerfuels, October 2022.
INTRODUCTION TO BOOK AND CLAIM

Simplified process

1 Book & Claim Unit (BCU) = 1 MT of neat, certified product
I.e., 1.25 SAF BCU = 1.25 SAF MT

SAF physical
Fossil Jet
SAF Book & Claim transaction

Jet fuel supplier
Airport
GHG / Sustainability claim by airline or corporate

SAF producer
SAF supplier
Airport
Registry
SAF BCU* registration
SAF BCU* retirement
No claim
Objectives

**Accelerate**
Decarbonization of hard-to-abate sectors

**Bridging**
Limited supply locations vs increasing demand globally

**Enable**
Cost-sharing of Sustainable Fuels’ price premiums

**Meet**
Growing demand from corporates for in-sector solutions to decarbonize their aviation and shipping emissions
Driving in-sector decarbonisation

It is vital for the RSB Book & Claim System to be structured as an in-sector GHG reduction solution as this is what is needed to meet the requirements of protocols like the Science Based Targets initiative, and, in the future, of regulators.

**INSETTING**

Process of investing in emission reductions within an organisation’s value chain. Insets address the source of emissions attributable to the organisation and its products or services more directly than offsets.

**VS**

**OFFSETTING**

GHG reduction or removal outside an organisation’s value chain.
Integrative elements developed to foster the complex scaling of sustainable fuels

RSB B&C Recognition
Normative procedure for a registry ecosystem

RSB B&C Manual
Normative industry guidance for book and claim

RSB B&C Registry
Digital account and transaction data storage system

RSB Certification System
RSB Book & Claim Manual* requirements

*RSB Book & Claim Manual V3.0 (link)
SAF must be certified by the RSB or another EU RED or ICAO CORSIA recognized scheme.

- Crops
- Transport
- Refining
- Blending
- Wastes

RSB Book & Claim Registry Users:

- Supplier that registers SAF BCU
- Transport Service Provider (e.g., Airline)
- Logistics Provider (e.g., Freight Forwarder)
- Corporate end-user

RSB Trader Certification
Book & Claim Unit Retirement Statement

The RSB confirms that the following Book & Claim Units (BCU) have been retired from circulation in the RSB Book & Claim Registry:

**Product Type**
- SAF

**Amount of BCU**
- 120.50

**Tonne of CO2eq**
- 398.17

<table>
<thead>
<tr>
<th>Product Type</th>
<th>Amount of BCU</th>
<th>Tonne of CO2eq</th>
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<td>SAF</td>
<td>120.50</td>
<td>398.17</td>
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**BCU ID**
- RSB-BCU-23-09-012

**Sustainability Information**

- Amount of product in megapounds (MJ): 3,502,000 (44,000 MJ / Mj)
- Amount of product in tonnes (MT): 120.50
- Sustainability certification: RSB KAO CORSIA
- Fossil baseline of reference (gCO2eq/MJ): 89.00
- GHG LCA value: 13.90
- % GHG emission reduction compared to fossil baseline: 84.38%

- Feedstock: Used Cooking Oil (UCO)
- Feedstock Country of Origin: France
- Declaration of SAF Incentives: n/a
- Year of SAF production: 2002
- Country of SAF blending: United States
- Airport where SAF is delivered (if known): Los Angeles (LAX)
- Country where SAF BCU will be claimed: Australia
- Type of Reporting: Voluntary

NB: The entities listed on the retirement statement shall take their own independent advice on the legal, accounting and/or regulatory application of the claims set out in the retirement statement against voluntary GHG emission reduction schemes.

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1. 1 BCU is equivalent to 1 tonne of neat, certified product. 1 tonne = 1 metric ton (MT) = 1000kg
2. The absolute GHG emission reduction expressed in tonnes of CO2eq is calculated using certified GHG values submitted during BCU registration. Please refer to the RSB Book & Claim Manual (v5, March 2023, Section 4 “Requirements for BCU Retirement”) for more information.

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Companies mentioned in the retirement statement are entitled to claims.

Each BCU carries one Scope 1 claim and several Scope 3 claims, which shall be done according to the claiming, double counting and additionality requirements.

The retirement statement is automatically published in a public retirement statement table available on the RSB Registry website.

Option for the name of Scope 3 corporate end-client to be anonymised in the public table when contracts bound by confidentiality.
RSB’s Double Counting Mitigation

**Double issuance**

More than 1 unit issued for the same emission reduction

- BCU Registrations by SAF supplier verified by third-party audits
- RSB Registry Audit
- RSB Book & Claim Recognition Procedure (for independent Registries)

*Ambition: interoperable Registry ecosystem*

**Double use**

Same unit used more than once (i.e., sold to more than 1 buyer)

- Public Retirement Statement table
- RSB Registry Audit

**Double claiming**

Same unit used to meet both domestic and international GHG targets, or two or more companies claiming ownership for the same GHG emission reduction within the same scope.

- Public Retirement Statement table (including information on tax credits and incentives)
- Transparent GHG disclosure by value chain actors (RSB Book & Claim Manual Section 6)
- Additionality approach (RSB Book & Claim Manual Section 7)
RSB aligns additionality to the concept of *atmospheric benefit*. This approach ensures that emission reductions from sustainable fuels that are claimed towards voluntary climate targets generate emissions reductions beyond those already mandated by compliance obligations, thus creating an atmospheric benefit.

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<tr>
<th>Corporation (Scope 3)</th>
<th>Airline (Scope 1)</th>
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<tbody>
<tr>
<td><strong>Mandate (i.e., fuel blending mandate or emission reduction obligation)</strong></td>
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<tr>
<td><em>Unless prohibited by national regulator</em></td>
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<th>Corporation (Scope 3)</th>
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<td><strong>Incentive not linked to a cap-and-trade system</strong></td>
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<td><strong>Voluntary target</strong></td>
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Thank you

For more information on the RSB B&C System visit