Measures to Strengthen ISCC Certification of Waste and Residue Supply Chains: Progress Report and Outlook

Sascha Wüstenhöfer, ISCC System GmbH
Technical Committee “Waste, Residues and Advances Low Carbon Fuels”, online, 01 September 2020
Latest Developments and Regulatory Update

Measures to Strengthen ISCC Certification

Outlook
01 Latest Developments and Regulatory Update
3rd Meeting of the Technical Committee Waste, Residues and Advanced Low Carbon Fuels

- Technical Committee (TC) was established in 2018
- TC supports the constructive dialogue on the sustainability certification of waste and residues-based and advanced low carbon fuels
- The core objective is to support the development and deployment of low carbon fuels
- Topics discussed during previous meetings included:
  - Certification of feedstocks and biofuels in Asia
  - Sustainable biofuels for aviation, maritime and road transport
  - Renewable feedstocks of non-biological origin
  - Measures to strengthen ISCC certification of waste and residue feedstocks
ISCC Working Group(s) on Waste and Residues

- Working Group active since February 2019
- Members: ISCC system users, members and auditors with a proven competency in waste and residue issues
- Objective:
  - The ISCC WGWR should suggest concrete, practical and implementable measures on how to further strengthen the ISCC certification process of waste and residues
- Implementation Process:
  - Suggestions by the ISCC WGWR are submitted to the ISCC head office by the chairs
  - Suggestions will be implemented after consultation and decision in the ISCC board
- Sub-working group focussing on waste from the palm sector (e.g. POME)
In the last 10 years, the share of ISCC certified System Users has increased significantly.

Currently more than 50% of all ISCC EU certified System Users are handling waste or residue material.
The number of ISCC PLUS certificates in the circular and bioeconomy increases steadily

Note: Numbers as of 19 August 2020

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Waste and residues become increasingly important feedstocks. UCO is still the predominant waste certified under ISCC.

Certificates covering waste/residues may cover both, waste/residue material and non-waste biomass. Figures do not represent volumes of certified material.
Waste and residues represent 15% of ISCC certified raw material in 2019. UCO and Animal Fats account for almost half of the certified amounts.

Shares of ISCC-certified Raw Material Amounts 2019

- Biomass from Agriculture: 85%
- Waste & Residues: 15%
- UCO: 26%
- Animal Fat: 17%
- Other W/R: 57%

Waste and Residues (amount in MT)

- Used Cooking Oil: 3,179,053 MT
- Other wastes and residues: 2,877,793 MT
- Animal fat / tallow: 2,063,230 MT
- Manure: 837,208 MT
- Waste starch slurry: 781,506 MT
- Empty palm fruit bunches: 688,333 MT
- Grape marc: 672,874 MT
- Food waste: 622,005 MT
- Spent bleaching earth: 459,852 MT

Total amount of approx. 82 million metric tons ISCC certified raw materials in 2019 (as of April 2020 – approx. 10% of reports still pending). Figures based on data reported to ISCC for the calendar year 2019.
Sustainable Aviation Fuel (SAF): ISCC has submitted its application to ICAO as a sustainability certification scheme under CORSIA

- Major SAF producers and important market players are ISCC members and certified ISCC system users
- For the recognition, ISCC has developed a new ISCC CORSIA Standard
- The new ISCC CORSIA system documents cover all relevant aspects, including:
  - CORSIA requirements
  - GHG emission savings
  - Protection of land with high biodiversity value and high carbon stock
  - Requirements for certification bodies
  - Traceability and chain-of-custody
- Specific web-based ISCC CORSIA trainings will be offered as soon as ISCC CORSIA has been recognised by ICAO

ISCC members and system users active in SAF

Amstelveen, 10 December 2019
KLM and Neste are taking another step forward in sustainable aviation fuel for flights from Schiphol

KLM only sources sustainable aviation fuels based on waste and residue feedstocks that significantly reduce the CO2 footprint and do not have a negative impact on food production or the environment. The sustainability of the chain is ensured through certification by the International Sustainability and Carbon Certification Plus (ISCC+) and...
COVID-19 and its implications on ISCC

- **On-site audits difficult or not possible:**
  - ISCC allowed **remote certification audits** under strict conditions (specified in several ISCC system updates) ensuring that ISCC system users can remain certified while maintaining a **high level of assurance**
  - The European Commission **does not allow remote audits for new system users (initial audits)** under any of the recognized voluntary schemes
  - ISCC Integrity Assessments are **conducted remotely** and focus on the verification of compliance with traceability, mass balance and GHG requirements

- **No „face to face“ events and trainings:**
  - ISCC initiated the **transition of events and trainings to online formats**, thus allowing the continued qualification of ISCC auditors and the exchange with ISCC stakeholders

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UCO exports from Asia have dropped in Q1 2020 due to COVID-19 but have seen a quick recovery according to market intelligence.

Source: Argus Media
Estimated UCO supply in the US and Europe according to market intelligence

- At the peak of the pandemic, collections were down likely 50% in US and parts of Europe

- Annual UCO collections in the US and Europe are estimated to be down between 10 – 15%

- Significant regional variability

- In Southern Europe, UCO collections are estimated to be cut by 25% or worse due to a significant drop in travel, restaurant bankruptcies, etc.

Source: PRIMA
RED II: Re-recognition of voluntary schemes is scheduled for 1\textsuperscript{st} July 2021

- Transposition of RED II is due by 30 June 2021
- Recognition of voluntary schemes (VS) under the “old RED” will no longer be valid after 30 June 2021
- A revised „assessment protocol“ for the re-recognition of VS was published on 31\textsuperscript{st} of July 2020 (https://ec.europa.eu/energy/sites/ener/files/assessment_protocol_template_redii_final.pdf)
- European Commission (EC) has yet to adopt several delegated acts (e.g. renewable fuels of non-biological origin, recycled carbon fuels, co-processing, review of Annex IX, solid biomass) as well as implementing acts specifying further rules for VS (EC “intends to adopt such implementing acts well before 30 June 2021”)
- ISCC is currently updating its scheme documents to be submitted to the EC for re-recognition within the next weeks*

* Once the EC publishes further implementing and/or delegated acts relevant for the voluntary schemes, a further revision of the scheme documents may be required
Revised „assessment protocol“: New requirements for all voluntary schemes have already been implemented by ISCC in January 2020

<table>
<thead>
<tr>
<th>Revised Assessment Protocol from the Commission</th>
<th>Implications for ISCC</th>
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</thead>
<tbody>
<tr>
<td>„Points of origin supplying more than [to be determined] tonnes per month of high risk waste or residue (e.g. used cooking oil) shall be subject to an on-site audit, which may be based on a sample if a group auditing approach is taken.“</td>
<td>The threshold for points of origin to be audited based on a sample might be reduced (currently 10 metric tons per month under ISCC)</td>
</tr>
<tr>
<td>„Collecting points are required to submit a list of all points of origin that have signed a self-declaration and their indicative volume of waste or residue that they can supply to the auditor prior to the audit of the collecting point. The auditor shall verify the existence and volume supplied from at least the square root of the points of origin on the list.“</td>
<td>Already implemented in the beginning of 2020</td>
</tr>
<tr>
<td>„Mandatory surveillance audit by the certification body six months after the first (initial) certification. For collecting points and traders that deal with both waste and residues and with virgin materials (e.g. vegetable oils), the surveillance audit is conducted three months after the first certification audit (covering the first mass balance period).“</td>
<td>Already implemented in the beginning of 2020</td>
</tr>
</tbody>
</table>

Question: How to efficiently obtain indicative volumes of waste and residues that a PoO can supply?
Update of RED Annex IX: Current study to evaluate additional advanced feedstocks

- A consortium currently assists the European Commission in the evaluation of further advanced biofuel feedstocks
- Project is divided into three tasks:
  - Establishment of a **short list of potentially advanced biofuel feedstocks for inclusion in Annex IX**
  - Detailed **assessment of each feedstock in the short list**
  - **Analysis of the risk of fraud** associated with new and existing Annex IX feedstocks, establishment of a set of **fraud risk indicators** and consideration of **options to mitigate identified fraud risks**
- Results from 1st stakeholder consultation were published in the end of July
- Second stakeholder consultation ends on 04 September 2020
Preliminary results of the study to update Annex IX: Many materials that might be added to Annex IX in the future are already certified under ISCC today

<table>
<thead>
<tr>
<th>Feedstock status: „Include in short list“*</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Potato/beet pulp</td>
<td>Damaged crops</td>
</tr>
<tr>
<td>Sugars (fructose, dextrose) refining residues</td>
<td>Animal residues (not fat) Cat 2</td>
</tr>
<tr>
<td>Molasses</td>
<td>Animal residues (not fat) Cat 3</td>
</tr>
<tr>
<td>Vinasse</td>
<td>Animal fats Cat 3</td>
</tr>
<tr>
<td>Spent grains</td>
<td>Municipal wastewater and derivatives (other than sludge)</td>
</tr>
<tr>
<td>Whey permeate</td>
<td>Soapstock and derivatives</td>
</tr>
<tr>
<td>Olive pomace</td>
<td>Brown grease</td>
</tr>
<tr>
<td>Raw methanol</td>
<td>Fatty acid distillates (FADs)</td>
</tr>
<tr>
<td>Oil, beans and meals derived from rotation crops</td>
<td>Various oils from ethanol production</td>
</tr>
<tr>
<td>Biomass from fallow land</td>
<td>Distillers grain and solubles (DGS)</td>
</tr>
<tr>
<td>Biomass from degraded / polluted land</td>
<td>Other biowaste</td>
</tr>
<tr>
<td>Mixture meadow</td>
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</tbody>
</table>

* Note: Including a feedstock in the short list does not mean it will be necessarily proposed for inclusion in Annex IX. The shortlisted feedstocks will only be taken to a more detailed assessment
Many ISCC Members and System Users already use Annex IX A feedstocks to produce advanced biofuels

- **Raizen** produces bioethanol from **bagasse**
- **UPM** is producing renewable diesel and bio-naphta from **tall oil pitch and crude tall oil**
- **Enerkem** is producing methanol and ethanol from **municipal solid waste**
- **BioMCN** is converting **waste-based biogas** into bio-methanol

Companies producing biofuels out of **Palm Oil Mill Effluent (POME)**
Measures to Strengthen ISCC Certification
### Overview on measures and status of implementation: Measures already implemented

<table>
<thead>
<tr>
<th>Action / Measure</th>
<th>Status of implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mass Balances shall generally be submitted to the auditor prior to the audit. In case of multiple storage sites, auditor should audit the mass balance of every storage site (not only a sample).</td>
<td>Done (ISCC system update as of 01 October 2019)</td>
</tr>
<tr>
<td>Mandatory surveillance audits after 6 months and in addition after three months (for traders and collecting points). Can be desk-based.</td>
<td>Done (ISCC system update as of 01 October 2019)</td>
</tr>
<tr>
<td>Individual GHG calculations shall generally be submitted to ISCC by the CB together with the certification documents</td>
<td>Done (ISCC system update as of 01 October 2019)</td>
</tr>
<tr>
<td>List of all points of origin shall be submitted to the auditor prior to the audit</td>
<td>Done (ISCC system update as of 01 October 2019)</td>
</tr>
<tr>
<td>Auditors must select a sample of all points of origin that have signed the ISCC self-declaration and verify their existence e.g. through research of websites, telephone call, etc.</td>
<td>Done (ISCC system update as of 01 October 2019)</td>
</tr>
<tr>
<td>Approximate amount of waste generated per month (or year) and telephone number should be stated on the ISCC self-declaration</td>
<td>Done (April 2020)</td>
</tr>
</tbody>
</table>
## Overview on measures and status of implementation:
### Measures already implemented

<table>
<thead>
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<tbody>
<tr>
<td>Evidence or documents for all individual deliveries must be available at the Collecting Point and provided to the auditor (e.g. delivery slips, self-declarations, etc.)</td>
<td>Done (ISCC system update as of 01 October 2019)</td>
</tr>
<tr>
<td>Mandatory W/R training for auditors</td>
<td>Done (training introduced in April 2020)</td>
</tr>
<tr>
<td>Expand the existing ISCC Integrity Programme with a focus on sales made as sustainable wastes &amp; residues</td>
<td>Done (continous process)</td>
</tr>
<tr>
<td>Include international definition of responsible person (&quot;named company directors&quot;) in the registration process</td>
<td>Done (February 2020)</td>
</tr>
<tr>
<td>Automated information of system users, EC and other voluntary schemes about withdrawn certificates and suspended companies</td>
<td>Done (ISCC system update as of 01 October 2019)</td>
</tr>
<tr>
<td>Whistleblower website</td>
<td>Done (ISCC system update as of 28 May 2019)</td>
</tr>
</tbody>
</table>
### Overview on measures and status of implementation: Implementation currently in progress

<table>
<thead>
<tr>
<th>Action / Measure</th>
<th>Status of implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auditors and ISCC shall be entitled to double-check and verify deliveries with suppliers and recipients</td>
<td>In progress</td>
</tr>
<tr>
<td>ISCC to consult with TCs to provide further guidance to auditors on: Technical specifications of UCO vs. virgin oils; Typical documents to be verified at individual supply chain elements</td>
<td>In progress</td>
</tr>
<tr>
<td>Ask CBs to identify common non-compliances and difficult interpretations</td>
<td>In progress</td>
</tr>
<tr>
<td>Re-evaluate equivalence of other Voluntary Schemes after these changes are adopted</td>
<td>In progress</td>
</tr>
<tr>
<td>Communication between other Voluntary Schemes on sanctions, suspensions, risks</td>
<td>In progress</td>
</tr>
<tr>
<td>Database solutions (e.g. TYC, blockchain, etc.)</td>
<td>In progress</td>
</tr>
<tr>
<td>Fines for major and minor non-compliance</td>
<td>In progress</td>
</tr>
<tr>
<td>Publishing the reasons for withdrawal of certificates (and/or suspensions?)</td>
<td>In progress</td>
</tr>
<tr>
<td>Update of ISCC Terms of Use</td>
<td>In progress</td>
</tr>
</tbody>
</table>
### Overview on measures and status of implementation: Measures not implemented / further input required

<table>
<thead>
<tr>
<th>Action / Measure</th>
<th>Status of implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduction of the threshold for PoO</td>
<td>Currently not implemented based on stakeholder feedback</td>
</tr>
<tr>
<td>Checks on “live consignments” to verify whether declared sustainable materials appear consistent with their origin &amp; approximate physical characteristics (i.e. options for chemical analysis of UCO)</td>
<td>Specification necessary</td>
</tr>
<tr>
<td>Risk mapping of the supply chain</td>
<td>Specification necessary</td>
</tr>
<tr>
<td>Amounts of sustainable material (incoming and outgoing) to be reported to ISCC on a quarterly basis</td>
<td>Specification necessary</td>
</tr>
</tbody>
</table>
The newly developed “ISCC Waste and Residues Online Training” was launched in May 2020

- Compulsory for all ISCC auditors who conduct audits in waste and residue supply chains (transition period until 31 December 2020)
- Auditors have to successfully pass a test after the online training

- 3 trainings already conducted in 2020
- 4 additional trainings are planned until then end of 2020
- 146 participants so far (94 auditors)
- 79 auditors have successfully passed the test and have received their attestations!
Registration for the upcoming W/R online trainings can be found on the ISCC website

- ISCC auditors need to complete the training and pass the test in order to conduct audits for waste and residues supply chains starting on the 1st January 2021

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Details</th>
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<tbody>
<tr>
<td>SEPT 22</td>
<td>13:00 – 18:00 CEST (Fully booked!)</td>
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<tr>
<td>OCT 8</td>
<td>09:00 – 14:00 CEST</td>
<td></td>
</tr>
<tr>
<td>OCT 28</td>
<td>09:00 – 14:00 CEST</td>
<td></td>
</tr>
<tr>
<td>NOV 25</td>
<td>09:00 – 14:00 CEST</td>
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</tbody>
</table>
Pilot project on traceability database Trace Your Claim – TYC

- Start of pilot 2019 on 30 October 2019
- 6 waste-based supply chains participating in the pilot
- Conclusions from the pilot:
  - TYC meets the core functions of a traceability database (e.g. secure data transfer, reduction of fraud risk) and efforts shall be made to further develop TYC
  - Important functions that should be developed: Interconnection with national databases like Nabisy, including GHG data
- European Commission aims to have a “Union database” operational until mid 2021
- Status quo: Further feedback from European Commission regarding the ”Union database” (timeline and supply chain coverage) and from industry regarding the commitment for an interim solution required
The ISCC Integrity Program is an important pillar of the ISCC quality policy

Results 2019:
- Overall 65 on-site Integrity Assessments in 2019
- Withdrawal of 23 certificates (a total of 146 certificates were withdrawn since 2010, i.e. 0.5% of all ISCC certificates)
- Suspension from recertification of 24 system users for a period of 6-60 months, as well as 5 auditors
- Three “yellow cards” have been issued to CBs by ISCC
- Based on the analysis, ISCC system documents, audit procedures and other templates are continuously improved and updated

Results 2020 so far:
- Focus on desk assessments, reflecting the COVID-19 situation (resuming to on-site assessments as soon as possible)
- 16 desk assessments, resulting in 2 suspensions
Increased focus on waste and residue supply chains in the ISCC Integrity Program

Development of ISCC Integrity Assessments for waste and residues supply chains

* For the years 2011 – 2014 the distinction between IA related to w/r and agricultural feedstocks has not been made. Traders that trade both types of materials are not included in the w/r category.
05 Outlook
Outlook

- **Implementation of RED II and re-recognition of ISCC EU:**
  - Delegated acts and implementing acts to be published by the European Commission
  - Transition periods (for schemes, operators, deliveries) to comply with new requirements
  - Union database and potential interim solution

- **COVID-19:**
  - Resuming to “business as usual” including on-site audits
  - Further development and improvement of digital solutions to facilitate remote auditing processes (geo-referenced pictures/videos, databases, electronic auditing tools, etc.)

- **ISCC Working Group(s) on Waste and Residues to continue work**

- **Update of ISCC Terms of Use to implement further measures**
The ISCC Association is a diversified multi-stakeholder non-profit organization with nearly 150 members.
Many thanks for your attention!

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Email: wuestenhoefer@iscc-system.org
Stakeholder Discussion and Agreement on Next Steps
Part 1
Enabling double-checks of sustainability claims by engaging suppliers and recipients: Proposed procedure to be included in the ISCC terms of use

- System Users shall be **obliged to enable the CB and ISCC to double-check and verify the correctness of sustainability claims** and the supporting evidence **received from (upstream) suppliers and provided to (downstream) recipients** or buyers.

- The System User shall be obliged to contact the certified supplier or recipient of sustainable material and ask to provide copies of the respective evidence (CB and ISCC shall be copied in the entire communication to ensure transparency).

- The CB or ISCC will then double-check and verify that the documents shown by the audited company correspond to the documents that were issued by the upstream supplier (or received by the buyer).

- All ISCC certified System Users shall be **obliged to cooperate** in this process in a timely manner:
  - This means: Upon request by the buyer, the ISCC certified supplier will be obliged to provide copies of the requested documents via email to the buyer within 14 days.

**Zoom Poll:**

- Do you think the suggested process is effective to reduce the risk of fraud, i.e. falsified documents?
- Do you think the suggested process is practicable?
Threshold for points of origin to be audited on-site (based on a sample)

The revised assessment protocol indicates that a reduced threshold may be required by the Commission:

- "Points of origin supplying more than [to be determined] tonnes per month of high risk waste or residue (e.g. used cooking oil) shall be subject to an on-site audit, which may be based on a sample if a group auditing approach is taken."

Currently, only points of origin supplying more than 10 metric tons per month must be subject to an on-site audit under ISCC (based on a sample)

- Note: If there is indication of non-conformity at the point of origin, the point of origin must be subject to an on-site audit irrespective of how much waste or residues it generates

A reduced threshold will increase the number of sample audits that are required during the certification of a collecting point, thus increasing the cost of certification at the beginning of the supply chain.

Zoom Poll:

- Do you think the threshold for points of origin to be audited on-site should be reduced?
- What threshold for points of origin to be audited on-site (based on a sample) do you consider as appropriate and practical?
How to efficiently obtain indicative volumes of waste and residues that a PoO can supply?

- Revised assessment protocol: "Collecting points are required to submit a list of all points of origin that have signed a self-declaration and their indicative volume of waste or residue that they can supply to the auditor prior to the audit of the collecting point. The auditor shall verify the existence of and volume supplied from at least the square root of the points of origin on the list."

- Stakeholder feedback submitted to ISCC on the first draft version of the updated self-declaration for used cooking oil suggested, that an indication of volumes for each individual point of origin would be considered as impractical.