Certification of RED II Sustainability Criteria: Preparation and Perspectives of ISCC

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ISCC is one of the leading certification schemes applied on a global scale for different feedstocks and markets.
ISCC facts & figures

System users in 100+ countries

21,000+ certificates
3,300+ system users

28 certification bodies
400+ ISCC trained auditors

Training Programme (75 Trainings so far for auditors and system users)

Innovative tools and procedures to facilitate audits

Use remote sensing to verify land use change

8 Voluntary add-ons to address specific customer requirements

Stakeholder dialogue: 116 ISCC Association members

Discussion platform with 4 Regional and 2 Technical Committees

Integrity Programme 3 auditors

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ISCC is a multi-stakeholder association with 116 members. The association steers the overall development of the ISCC system.
ISCC has implemented processes and measures to ensure highest quality, integrity and security of the system.
ISCC core principles - a balanced set of ecological and social criteria addressing and going beyond regulatory requirements

**Principle 1:** Protection of biodiverse and carbon rich areas

**Principle 2:** Good Agricultural Practice

**Principle 3:** Safe Working Conditions

**Principle 4:** Compliance with Human, Labour and Land rights

**Principle 5:** Compliance with Laws and International Treaties

**Principle 6:** Good Management Practices and Continuous Improvement
ISCC Principle 1: Ensuring the protection of biodiverse and carbon rich areas

Primary forests and other wooded land
Highly biodiverse grassland

Forested areas
Wetland

Designated nature protection areas
Peatland
ISCC certified *Italian Bio Products* was producing bioethanol using straw, solid biomass from SRC and processing residues as feedstock.
The bioethanol plant sourced wood from different sources. The whole supply chain was ISCC certified.
Another example for an ISCC certified lignofuel is BioVerno, using tall oil as a feedstock.

- **Achievements:**
  - Advanced biofuel production
  - First ISCC certified wood based biofuel
  - No food vs. fuel
  - Low iLUC

- **Prospects:**
  - ISCC PLUS certification for wood based biomaterials

Location: Lappeenranta, Finland
Company: UPM
ISCC System user since 2014
Solid biomass can be cultivated in agriculture (SRC) and forestry. Certification starts on the level of biomass production.
In order to ensure the “same level playing field” for both production systems under ISCC, equal sustainability requirements are applied.
ISCC developed system documents for the certification of forest biomass based on RED I requirements

- ISCC certified lignofuels with high GHG emission savings available
- Certification based on w/r process or solid biomass from SRC (agriculture). Option: certification process based on forest biomass
- ISCC developed procedures for Forest Management Units (FMUs)
Starting in 2021, the RED II will be the legal framework for the bioenergy sector in the EU

<table>
<thead>
<tr>
<th>RED II timeframe: 2021 - 2030</th>
<th>Higher GHG emission savings targets</th>
<th>Amended fossil fuel comparators</th>
<th>Assessment for additional Annex IX feedstocks to be introduced</th>
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<tbody>
<tr>
<td>At least 32% RE by 2030 at EU level</td>
<td>Sub-target of 3.5% advanced biofuels in 2030 (mandatory)</td>
<td>Various multipliers set (shipping, aviation, rail, EVs etc.)</td>
<td>New sustainability requirements for solid biomass from forest</td>
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<td>At least 14% RES-T; obligation on fuel suppliers</td>
<td>7% cap on crop-based biofuels with strings attached</td>
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<td>Low iLUC risk biofuels excluded from phase-out (not from cap on crop-based biofuels)</td>
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<tr>
<td>Double counting for Annex IX, Part A+B biofuels possible</td>
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<td>Flexibility for MS is included</td>
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<td>High iLUC risk biofuels to be 0% by 2030</td>
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Annex IX defines advanced feedstocks and fuels, several of which are already covered by ISCC certification

<table>
<thead>
<tr>
<th>Annex IX</th>
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<tr>
<td><strong>Part A (“Advanced”)</strong> targets: at least 0.2% in 2022, 1% in 2025 and 3.5% in 2030</td>
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<tr>
<td>• Algae if cultivated on land in ponds or photobioreactors</td>
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<td>• Biomass fraction of mixed municipal waste but not separated household waste subject to recycling targets</td>
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<td>• Bio-waste as defined in Article 3(4) of Directive 2008/98/EC from private households subject to separate collection</td>
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<td>• Biomass fraction of industrial waste not fit for use in the food/feed chain, including material from retail/wholesale and the agro-food and fish and aquaculture industry, excluding feedstocks listed in part B</td>
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<tr>
<td>• Straw</td>
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<tr>
<td>• Animal manure and sewage sludge</td>
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<tr>
<td>• Palm oil mill effluent and empty palm fruit bunches</td>
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<td>• Tall oil pitch</td>
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<td>• Crude glycerine</td>
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<td>• Bagasse</td>
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<tr>
<td>• Grape marc and wine lees</td>
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<tr>
<td>• Nut shells</td>
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<tr>
<td>• Husks</td>
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<tr>
<td>• Cobs cleaned of kernels of corn</td>
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<tr>
<td>• Biomass fraction of wastes and residues from forestry and forest-based industries, i.e. bark, branches, pre-commercial thinnings, leaves, needles, tree tops, saw dust, cutter shavings, black liquor, brown liquor, fibre sludge, lignin and tall oil</td>
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<tr>
<td>• Other non-food cellulosic material</td>
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<tr>
<td>• Other ligno-cellulosic material except saw logs and veneer logs</td>
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</table>

| Part B (Not considered as “advanced”) capped to 1.7% but exemption possible |
| • Used Cooking Oil (UCO) |
| • Animal fats classified as categories 1 and 2 in accordance with Regulation (EC) No 1069/2009 |

Source: RED II (Directive 2018/2001)
RED II includes criteria for forest biomass. Guidance on the implementation of these criteria will be published in January 2021.
ISCC procedures for solid biomass already cover the five sustainability criteria for forest biomass set out in the RED II

- RED II criteria for forest biomass are already addressed via existing ISCC requirements
- ISCC certified producers are well prepared for the forthcoming regulation

**Legality of harvesting operations**

**Forest regeneration**

**Maintenance of soil quality and biodiversity**

**Harvesting maintains or improves long-term productivity**

**Protection of areas designated by laws, etc. for nature protection purposes**

Individual verification at forest sourcing area level
RED II applies new requirements for the GHG emission savings including exemptions for "biomass fuels"

GHG emission savings requirements in RED I and RED II

- **RED I**
  - Installation in operation after 5 Oct. 2015 (biofuels)
  - Installation in operation on or before 5 Oct. 2015 (biofuels)

- **RED II**
  - Installation starting operation from 1 Jan. 2026 (electricity, heat)
  - Installation starting operation from 1 Jan. 2021 (electricity, heat)
  - Installation starting operation from 1 Jan. 2021 (biofuels)
  - Installation starting operation after 5 Oct. 2015 (biofuels)
  - Installation starting operation on or before 5 Oct. 2015 (biofuels)

Date of entrance into force of the RED II in the Member States
Latest: 30 June 2021

* RED I – 2009/28/EC lately amended by 2015/1513/EC from October 2015 (Fossil reference GHG value: 83.8 gCO₂e/MJ)
** RED II – Directive (EU) 2018/2001 from 11 December 2018 (Biofuels fossil reference GHG value: 94 gCO₂e/MJ; Electricity, heat fossil reference GHG value: 183 gCO₂e/MJ)
ISCC data shows a reduction in processing emissions and an increase in the use of actual values.

**Sum of GHG Processing Emissions per t**
Example Biodiesel Supply Chain

- 15% reduction in GHG processing emissions

**GHG Calculation based on Actual Values**
Number of Issued Certificates
In The Netherlands, sustainability criteria for solid biomass are already set out

- The RVO (*The Netherland Enterprise Agency*) asked companies to apply for a subsidy under the SDE+ (Sustainable Energy production)

- In order to receive this subsidy, companies have to prove compliance with sustainability requirements for solid biomass

- Companies have to be certified by one of the certification schemes being approved by the *Minister of Economic Affairs and Climate Policy*, who is advised by the the *Advisory Committee on the Sustainability of Biomass for Energy Applications (ADBE)*

- Currently, ISCC is applying for recognition by the ADBE/RVO
New ISCC Solid Biomass NL document in Public Consultation

- New ISCC document focussing e.g. on:
  - Material eligible including solid biomass from forestry and residues from nature and landscape management
  - Requirements for sustainable forest management
  - Introduction of a risk based approach for small scale forest management units
  - Options for group certification
- ISCC Stakeholders are asked to provided feedback as part of the public consultation on this document:
  
  https://www.iscc-system.org/stakeholders/public-consultation/

- Next steps: ISCC aims to finalize the approval process
RED II: General implications for ISCC

- An update of ISCC EU is required to become recognized under the RED II, particularly to implement:
  - Delegated acts on:
    - ILUC (published on 13 March 2019)
    - Renewable fuels of non-biological origin and recycled carbon fuels (due in January 2021)
    - Co-processing (due in December 2021)
  - Sustainability requirements for solid biomass
  - Adjusted fossil fuel comparator and default values

- Transposition of RED II into is due by 30 June 2021

- Practical challenges require guidance from the EC:
  - How to deal with a non-harmonized transposition by different MS (i.e. with respect to time and content)?
  - Certification under RED I and RED II required to supply all MS?
  - Transition periods (for schemes, operators, deliveries)?
Open questions for solid biomass certification under RED II

• Verification of wood origin – How to address the risk of fraud without individual verification?

• Actual GHG calculation as a main driver for improvement along supply chains – Relevant for forest biomass in the future?

• Additional requirements by individual EU Member States (further market fragmentation)?
Many thanks for your attention!

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