ISCC 201-4
GUIDANCE FOR THE CERTIFICATION OF WOOD-BASED BIOFUELS
Version 3.1
1 Introduction

Compared to agricultural production, biomass production in the forest shows some peculiarities. In contrast to agricultural crops, trees often have a rotation cycle of more than 50 years. Forest management is more extensive than agricultural management. In addition, supply chain management, logistics, administrative structures and land tenure are different.

The forest sector must fulfil the RED requirements if biomass from the forest sector is used for bioenergy (in particular biofuels and bioliquids). However, due to the nature of forestry, additional guidance for applying ISCC is necessary.

The protection of land with high biodiversity value is of particular relevance for primary forests and protected areas. Biodiverse grasslands have to be protected as well. However, it is less relevant in practical terms in forestry. The protection of land with high carbon stocks (e.g. continuously forested areas, peatland, wetland) is of high relevance to forestry.

The use of wood from forests is allowed as long as the status of the land is not changed. Due to extensive management practices, GHG emissions are very low in forestry.

This document provides guidance for the certification of wood-based bioenergy and their supply chains (e.g. supply chains using round wood, bark, wood dust, wood chips, forest residues, black and brown liquor, crude tall oil). This guidance document is valid in addition to the existing requirements under ISCC EU.

The European Commission does not recognise existing forest certification systems as voluntary systems for RED purposes. The systems (FSC, PEFC) do not include all RED requirements. However, the systems partly cover the requirements of RED and ISCC. ISCC sustainability requirements focusing on relevant social (e.g. safe working conditions, compliance with human and labour rights and compliance with law; ISCC Principles 3-5) and economic sustainability criteria (good management practices; ISCC Principle 6) are also covered by the existing forest certification systems FSC and PEFC. Contrary to this, the land use related sustainability requirements (ISCC Principle 1) as well as the GHG emission saving requirements are not sufficiently addressed.

2 Certification Requirements

Wood-based bioenergy production must fulfil all sustainability, GHG and traceability requirements set up in ISCC, in particular:

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7 Those inputs for bioenergy production have different statuses in certain countries. This document applies guidance for input material classified as a product or a by-product in certain countries.
1 **Sustainability requirements**

The ISCC document 202 “Sustainability Requirements” addresses sustainable agricultural biomass production. Requirements must be fulfilled by forestry production for bioenergy as well.

2 **Requirements concerning greenhouse gas emission savings**

Requirements for the calculation and verification of greenhouse gas emissions and emission reduction are specified in ISCC document 205 “Greenhouse Gas Emissions”.

3 **Requirements concerning traceability and mass balance**

For traceability and mass balance, the requirements laid down in ISCC document 203 “Traceability and Chain of Custody” apply. The provenance of wood used for the production of biofuels must be traceable throughout the entire supply chain.

3 **Supply Chain Elements**

Typical supply chain elements include:

1. Wood supply
2. First gathering point
3. Processing unit
4. Transport

The following figure describes a typical supply chain for wood-based biofuels.

![Typical supply chain for wood-based biofuels](image)

*Fig. 1: Supply chain elements*

The following figure provides an overview of the certification requirements for the different elements of the supply chain, and explains differences compared to the agricultural sector.
It identifies supply chain elements and relevant certification requirements for the certification of wood-based biofuels.

<table>
<thead>
<tr>
<th>Element of the supply chain</th>
<th>Agriculture</th>
<th>Forestry</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Biomass producer</strong></td>
<td>Company / site that either owns or has leased one or multiple fields (e.g. farm, plantation)</td>
<td>All elements of the supply chain where wood is produced and/or mechanically processed (wood supply; e.g. forest management unit, sawmills)</td>
</tr>
<tr>
<td><strong>Warehouse</strong></td>
<td>Trader/warehouse acting on behalf of a first gathering point</td>
<td>Auditing based on sampling</td>
</tr>
<tr>
<td><strong>First gathering point</strong></td>
<td>Operator that first receives wood (e.g. agricultural cooperative) or mechanically processed wood</td>
<td>Receive self-declarations from all suppliers, audit</td>
</tr>
<tr>
<td><strong>Processing unit</strong></td>
<td>Oil mills, refineries, biodiesel and ethanol plants as well as other factories processing bioliquids or biofuels</td>
<td>Audit</td>
</tr>
<tr>
<td><strong>Transport</strong></td>
<td>Companies transporting the biomass between elements of the supply chain</td>
<td>Not auditing</td>
</tr>
</tbody>
</table>

**Certification requirements and differences to agriculture**

**Certification approach**
- Audit requirements
- Relevance for GHG emission savings

- Fill out self-declarations, auditing based on sampling
- Sustainability requirements (ISCC Principles 1-6) Traceability / mass balance (saw mills)
- Only for wood-based biofuels processed directly from wood

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*Fig. 2: Supply chain elements and certification requirements*
1) **Wood supply:** Wood supply covers all parts of the supply chain where wood is produced and/or mechanically processed. Forest management units, sawmills and/or distributors are typical wood suppliers.

Forest management units manage and/or produce wood in the forest. Management practices for forest wood production can be, for example, the planting of trees, thinning, the final harvesting of wood and the transport of wood out of the forest. As well as farms and plantations in agriculture, forest management units must comply with sustainability requirements set out in ISCC document 202 “Sustainability Requirements”. Relevant to certification are the companies or sites which either own and manage the forest or have leased one or multiple forest estates. If the forest estate is leased, the leaser is to be audited. As a basic principle, forest management units will be audited on the basis of a sample size of at least the square root of the number of forest management units.

Sawmills store and saw wood. Sawmills are processing units that mechanically process wood. Sawmills are part of the element wood supply and will be audited with respect to traceability and mass balance. As a basic principle, sawmills will be audited on the basis of a sample size of at least the square root of the number of sawmills.

Distributors are elements of the supply chain that receive and dispose wood with the purpose of transferring it to a (certified) first gathering point. Distributors will be audited with respect to traceability and mass balance. A mass balance must be in place. As a basic principle, distributors will be audited on the basis of a sample size of at least the square root of the number of distributors.

All wood suppliers (forest management units, sawmills, distributors) have to fill in and sign a self-declaration which must be available at the first gathering point.

For all elements of wood supply, existing certification can be taken into consideration to prove compliance with ISCC requirements but are by no means sufficient on their own.

**Audit requirements:**

- Availability of signed self declaration
- Traceability / mass balance system in place
- Greenhouse gas emissions (only for wood-based biofuels processed directly from wood)

2) **First gathering point:** First gathering points (FGP) for wood are elements in the supply chain that receive wood and have available all information on sustainable wood sourcing back to the forest management unit, including data on all logging areas and possible conversion processes within the wood supply. First gathering points either further process this raw material (in
which case they are considered a processing unit at the same time) or operate on behalf of a processing unit where the wood is processed.

First gathering points have to be certified. First gathering points have to receive signed self-declarations from all wood suppliers. A list of all wood suppliers must be available at the first gathering point.

Data on logging areas must be available using geographic information system (GIS) tools to prove compliance with the sustainability criteria laid down in the RED and in ISCC Principle 1. Compliance with ISCC Principles 2 – 6 can be evaluated by taking into account existing certification. Processing rates from all wood suppliers processing wood (e.g. sawmills) shall be verified to prove mass balance calculation. If any of the data mentioned above is not available, the first gathering point has to be located further upstream in the supply chain.

In cases whereby wood comes from unspecified sources, it cannot be considered sustainable.

Audit requirements:

> Traceability / mass balance system in place
> List of all wood suppliers
> Signed self declaration of wood suppliers
> Sustainability requirements (ISCC Principles 1-6) for all Forest Management Units
> Greenhouse gas emissions (only for wood-based biofuels processed directly from wood)

4 Additional Requirements Concerning GHG Emissions

The Renewable Energy Directive 2009/28/EC amended through Directive (EU) 2015/1513 (RED)\(^2\), contains a methodology for calculating the GHG emissions and the emission savings ("actual value") as well as a list of “default values”, including “disaggregated default values” that can be used in certain cases to show compliance with the criterion.

For most of the wood-based biofuels, actual values have to be calculated since only a few default values have been published within the RED. Because of the extensive land use in forestry and rotation periods over several decades, typical GHG emissions for forest management are negligible and have only marginal impact on the total emissions of wood-based biofuel.

\(^2\) In the following referred to as RED
COM 2010/C 160/02 includes further guidance for the calculation of GHG emissions. It is mentioned that regarding the greenhouse gas methodology, concepts should be interpreted in line with the objectives of the RED. According to the RED, member states may encourage the use of biofuels which give additional benefits, including the benefits of diversification offered by biofuels made from waste, residues, non-food cellulosic material, lignocellulosic material and algae (..) by taking due account of the different costs of producing energy from traditional biofuels on the one hand and of those biofuels that give additional benefits on the other.\(^3\)

Therefore, the use of wood as a lignocellulosic feedstock for biofuel production as well as the use of processing residues\(^4\) from the wood processing industry (e.g. sawmill industry, pulp industry, panel industry) as a feedstock for biofuel production is in line with the objectives of the RED.

Based on these publications from the EC, no emissions should be allocated to co-products from the processing of wood which the production did not aim for (..).\(^5\) In addition, no emissions should be allocated to waste or to agricultural crop residues and processing residues from the forest industry, since they are considered to have zero emissions until the point of their collection (similarly, when these materials are used as feedstock they start with zero emissions at the point of collection).\(^6\) This does not apply to the direct processing of forest wood into biofuels (e.g. biomass to liquid technology (BtL)).

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\(^3\) RED, point 89

\(^4\) A processing residue is a substance that is not the end product(s) that a production process directly seeks to produce. It is not the primary aim of the production process and the process has not been deliberately modified to produce it (COM 2010/C 160/02, Art. 5.2).

\(^5\) COM 2010/C 160/02, Article 5.2

\(^6\) COM 2010/C 160/02, Annex II