ISCC Stakeholder Meeting North America (ISCC TC NA)

Update ISCC

Las Vegas, 5 December 2017
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RED and FQD set the framework for renewable energy for transport in the EU

Renewable Energy Directive (RED) and Fuel Quality Directive (FQD)*

- **10% mandatory target** (2020) for renewable energy in transport
- Life cycle **GHG emissions reduction** by a min. of 6% by 2020 for fossil fuel suppliers
- Obligatory **sustainability requirements**
- Minimum **GHG savings**
- Use of voluntary **certification schemes**
- **Double-counting** options for biofuels produced from waste and residues, including UCOME
- ILUC debate promotes high GHG performance of **advanced biofuels** based on waste and residues

Both Directives have a strong impact on biofuel markets and the share and type of renewables used as feedstocks

The amended RED entered into force in October 2015. Waste/residue based biofuels are even further promoted.

Overview of amended RED (excerpt)

- 7% **cap on food/feed** crop biofuels
- Provisional **ILUC factors**
- Reverence value of 0.5% **for advanced biofuels** (non-food/feed crops listed in Annex IX part A of RED)
- Annex IX: feedstocks and fuels which can be **double counted** towards national quotas
- 60% GHG savings for **new installations**
- **Review** clauses (ILUC factors, default values, energy content of transport fuel)
- **Adjusted GHG** methodology
- **Regular reporting requirements** of voluntary schemes to the Commission
Annex IX of amended RED – List of advanced biofuels comprise non-food/feed crops

**Annex IX Part A (advanced biofuels)**

- Algae if cultivated on land in ponds or photobioreactors
- Biomass fraction of mixed municipal waste
- Bio-waste
- Biomass fraction of industrial waste not fit for use in the food or feed chain
- Straw
- Animal manure and sewage sludge
- Palm oil mill effluent and empty palm fruit bunches
- Tall oil pitch
- Crude glycerine
- Bagasse
- Grape marc and wine lees
- Nut shells
- Husks
- Cobs cleaned of kernels of corn
- Biomass fraction of wastes and residues from forestry and forestry-based industries
- Other non-food cellulosic material
- Other ligno-cellulosic material
- Renewable liquid and gaseous transport fuels of non-biological origin
- Carbon capture and utilisation for transport purposes, if energy source is renewable
- Bacteria, if energy source is renewable

Used cooking oil and animal fat based biofuels are not considered as advanced biofuels

### Annex IX of amended RED*

Feedstocks and fuels that shall be considered for double counting

<table>
<thead>
<tr>
<th>Part A</th>
<th>Part B (Not considered as advanced feedstocks)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Advanced biofuels (see previous slide)</td>
<td>• <strong>Used Cooking Oil (UCO)</strong></td>
</tr>
<tr>
<td></td>
<td>• <strong>Animal fats categories 1 and 2</strong></td>
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The RED II to set the path for post 2020 (I) – The potential for waste/residues will further increase – Current state of discussion

- Target of at least **35% renewable energy** and **40% GHG emission** savings by **2030** across the sectors electricity, heating and cooling, and transport

- **Gradual reduction of „food/feed-based“ biofuels**

- Developing the decarbonisation potential of **advanced biofuels**

- Minimum share of biofuels and biogas produced from feedstock listed in **Annex IX** shall be at least equal to **1.5%** in 2021 (up to at least **10%** in 2030)

- The share of **advanced biofuels/-gas** produced from feedstock listed in part A of **Annex IX** should be **at least 0.5%** as of January 2021 at least **3.6%** by 2030

- **ILUC** mainly addressed by gradual reduction of conventional biofuels and promoting high GHG performance of advanced biofuels

- Incorporation obligation for **aviation** and **maritime** renewable fuels. Minimum share of advanced biofuels for aviation shall be **1.5%** by 2021 increasing to **6.8%** by 2030

ISCC is recognised by the EC. Only biofuels certified by recognized schemes are eligible to be counted towards quota fulfilment.

European Commission

Certification Schemes
Development of standards, requirements, procedures, tools, etc.

Accreditation Bodies
Accreditation of programs and CBs

Surveillance
Cooperation Contracts

Certification Bodies
Conduction of audits and issuing of certificates

Recognition

Points of Origin
Collecting Point
Trader/Storage
Biodiesel Plant
Trader/Storage
Quota obligated party in the EU

Audits of supply chain elements
ISCC is a leading global sustainability certification system applicable for all feedstocks and many markets

Feed  Food  Energy  Bio-based products
Certification of agricultural and forestry feedstocks under ISCC

Examples

- Soy
- Canola
- Palm
- Sunflower
- Cereals
- Corn
- Sugarcane
- Sugarbeet
- Wood
- Cotton
- Shea Nuts
- Camelina
All kinds of waste-related materials such as UCO, becoming more relevant for ISCC

Waste and processing residues:
- UCO
- Landfill gas
- Tall oil
- End-of-life tires
- Municipal solid waste
- Crude glycerine

Renewable non-bio feedstocks:
- Power-to-Gas
- Power-to-Energy
- CO2

Forestry / agricultural crop residue:
- Forestry residue
- Husks
- Straw
16,500+ ISCC certificates have been issued since 2010 in over 100 countries. Over 3,000 certificates are valid today.
ISCC cooperates with 32 certification bodies from 16 countries to conduct the audits for ISCC certification.
ISCC EU is the leading certification scheme for waste and residues. Almost half of the ISCC certificates cover waste/residues.

Certificates exclusively for non-waste biomass 52%
Certificates covering waste/residues 48%

UCO is most important waste/residue certified under ISCC

Certificates covering w/r other than UCO 35%
Certificates covering UCO 65%

Numbers as of 8 November 2017. Certificates covering waste/residues may cover both, waste/residue material and non-waste material.
Top 10 of waste and residues materials covered currently under ISCC

*Numbers as of 8 November 2017. Each certificate may be issued for more than one raw material. Information for trader and/or storage as stated in audit procedures as no (raw) materials are indicated on certificates.*
China is a fast growing market for ISCC. UCO is by far the most important material.

<table>
<thead>
<tr>
<th>Type of operation</th>
<th>Certificates</th>
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<tbody>
<tr>
<td>Collecting Point</td>
<td>77</td>
</tr>
<tr>
<td>Refinery</td>
<td>2</td>
</tr>
<tr>
<td>Biodiesel Plant</td>
<td>28</td>
</tr>
<tr>
<td>Trader, Storage</td>
<td>70</td>
</tr>
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Materials covered by certification:
- UCO: 100%
- W/R processing of animal/vegetable oil: 32%
- Brown grease/trap fat: 7%

Numbers as of 7 November 2017
* Each certificate can cover more than one material
ISCC is compliant with important platforms and industry standards
SAI Compliance: ISCC certified companies can globally sell material to the food industry as equivalent to SAI

- E.g. ISCC certified corn mill
- E.g. ISCC certified soy mill
- E.g. ISCC certified palm oil mill
- E.g. ISCC certified sugar mill
- E.g. ISCC certified canola mill

**ISCC Certification**

= FSA 2.0 Silver

ISCC Compliant products can be sold as "Equivalent to FSA 2.0 Silver"

**ISCC Certification incl. Add-on SAI Platform Gold**

= FSA 2.0 Gold

ISCC Compliant products incl. add-on SAI Platform Gold can be sold as "Equivalent to FSA 2.0 Gold Level"
Companies like Coca-Cola, Bacardi, McCain, Unilever, Tesco, M&S or McDonalds are SAI-members

SAI Platform members (active and affiliate)
ISCC system users increasingly use the logo for on product claims. Examples Aguai, Pantaleon and Venusz (Bunge)
Example of claim to link to 100% renewable material in the packaging industry

“…That drives the replacement of conventional plastics from fossil fuels plastics with certified and sustainable plant-based polymer materials…“

Source: www.sig.biz/responsibility/packaging/beverage-packaging/signature-pack-details
Example for promoting ISCC PLUS certification for biochemicals: Production of partly biobased polyols (co-processing)

**ISCC Certification**

ISCC stands for International Sustainability & Carbon Certification and is a global certification system used in over 100 countries, with over 3000 system users and more than 15,500 certificates issued.

The certification is verification that our products are sourced and produced sustainably and is a way of securing that the Green House Gas (GHG) emission calculations are done correctly with proof of every input used. Perstorp is the first chemical company to gain the ISCC certification for its pro-environment polyols. Best of all each certificate highlights the CO2 savings you contributed to through each of your purchases, and show that our products live up to the requirements for a more livable future.

Clip on www.perstorp.com explaining the co-processing approach
The biogas/biomethane sector is of increasing importance. The number of certificates has tripled within the last 12 months.
Alternative jet-fuels are considered as a major means to reduce emissions from aviation

**Policy framework**

- ICAO is working on a globally applicable set of sustainability criteria for CORSIA (Carbon Offsetting Scheme for International Aviation)
- RED amendment opens opportunity for voluntary opt-in of sustainable aviation fuels to fulfil member states’ obligations
- RED II contains the option for a dedicated incorporation obligation for renewable aviation fuels

- ISCC is member of the EU delegation to ICAO / CORSIA / AFTF working group
- ISCC is participating in a demo project at the Leipzig Airport
- Adjustment of sustainability certification schemes to cover aviation specific requirements
- ISCC has been recognised by aireg since 2014
Why companies choose ISCC: # 1 is an integral one stop shop for all crops and markets

Only one audit required to cover all markets!
# 2 ISCC provides methodology and information for companies and auditors to reduce their carbon footprint

Feedstock production:
- Cultivation emissions $e_{ec}$
- Land use change $e_l$
- Improved agricultural management $e_{sca}$

Processing:
- Processing $e_p$
  - Upstream transport $e_{td}$
  - Excess electricity $e_{ee}$
  - CCR $e_{ccr}$
  - CCS $e_{ccs}$

Final processing:
- Processing $e_p$
  - Upstream & downstream transport & distribution $e_{td}$
  - Excess electricity $e_{ee}$
  - CCR $e_{ccr}$
  - CCS $e_{ccs}$

Simplified supply chain:
- Farm/Plantation/Central office/FGP
- Processing unit
- Final processing unit
- Final market
# 3 ISCC investes and provides tools to facilitate the certification process

APS allows focussed, faster and easier audits and documentation in the certification process!

What is APS?

- Secure and competent way of conducting audits
- Simplifies the audit preparation
- Contributes to more efficient audit performance
- Automized audit reports ready to print
- Different auditors can work on the same audit at the same time
ISCC uses innovative tools such as GRAS, a remote sensing tool to support identification of land use change

With GRAS (www.gras-system.org) we can analyze deforestation and grassland conversion and ensure a more credible, effective and less costly certification!
# 4 ISCC addresses social issues. Continuous improvement of standard and ongoing dialogue with stakeholders is essential

For ISCC social issues are a crucial component of the sustainability certification

Implementation of social requirements is supported by:

- Working group “Social Issues”
- ISCC Integrity Audits
- Continuous dialogue with NGOs
- Coverage of topics in ISCC trainings for auditors and company representatives
# 5 ISCC performs very well in benchmarks. International Trade Center provides transparent information on standards*

„According to the WWF analysis the best performing certification system was RSB (Round Table on Sustainable Biomaterials), closely followed by ISCC and the Round Tables on Sustainable Palm (RSPO) and Soy (RTRS).“

*WWF Germany Benchmark Study*

*: ITC Standards Map
# 6 ISCC can be adopted to specific customer requirements by using the voluntary ISCC add-ons

- Increasing biodiversity
- Phasing out hazardous chemicals
- Reducing consumption of water, fuels, electricity
- Reducing GHG emissions
- Producing non GMO
# 7 ISCC help line ensures a fast processing of your requests and concerns

We respond to emails within shortest time and meet regularly with our system users to address common concerns and to elaborate appropriate solutions.
ISCC is a multi-stakeholder initiative. It is governed by the ISCC Association with more than 90 members. New members are welcome.
Members of ISCC e.V. that joined in 2017 – 12 new members from eight countries

- Canada
- USA
- Guatemala
- Singapore
- China
- Malaysia
- Switzerland
- Spain
8th ISCC Global Sustainability Conference in Brussels in February 2018

Date: February 20, 2018
Place: Brussels, Belgium

- Established and vital platform for industry, trade, NGOs, associations, authorities and research
- As in previous years, 200 participants are expected
- Excellent networking opportunities
- Relevant topics around sustainability will be discussed
- ISCC e.V. General Assembly is taking place right after the conference (for ISCC e.V. members)
Creating a more sustainable world with ISCC certification

Become a Member of the ISCC Family!

Contact

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