SLOVENSKI STANDARD
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Trajnostna merila za proizvodnjo biogoriv in biotekočin za energijsko uporabo - Načela, merila, kazalniki in preskuševalniki - 1. del: Terminologija

Sustainability criteria for the production of biofuels and bioliquids for energy applications - Principles, criteria, indicators and verifiers - Part 1: Terminology

Nachhaltigkeitskriterien für die Herstellung von Biokraftstoffen und flüssigen Biobrennstoffen für Energieanwendungen - Grundsätze, Kriterien, Indikatoren und Prüfer - Teil 1: Terminologie

Critères de durabilité de la production des biocarburants et bioliquides pour des applications énergétiques - Principes, critères, indicateurs et vérificateurs - Partie 1: Terminologie

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European foreword

This document (EN 16214-1:2012+A1:2019) has been prepared by Technical Committee CEN/TC 383 “Sustainably produced biomass for energy applications”, the secretariat of which is held by NEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by May 2020, and conflicting national standards shall be withdrawn at the latest by May 2020.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document includes Amendment 1 approved by CEN on 13 November 2019.

〚A1〛 This document supersedes EN 16214-1:2012. 〈A1〉

"The start and finish of text introduced or altered by amendment is indicated in the text by tags 〚A1〛 〈A1〉.

This European Standard comprises the following parts:

— EN 16214-1, *Sustainability criteria for the production of biofuels and bioliquids for energy applications — Principles, criteria, indicators and verifiers — Part 1: Terminology*;

— prCEN/TS 16214-2, *Sustainability criteria for the production of biofuels and bioliquids for energy applications — Part 2: Conformity assessment including chain of custody and mass balance*;

— EN 16214-3, *Sustainability criteria for the production of biofuels and bioliquids for energy applications — Principles, criteria, indicators and verifiers — Part 3: Biodiversity and environmental aspects related to nature protection purposes*;

— EN 16214-4, *Sustainability criteria for the production of biofuels and bioliquids for energy applications — Part 4: Calculation methods of the greenhouse gas emission balance using a life cycle analysis*.

According to the CEN/CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

Directive 2009/28/EC [1] of the European Commission on the promotion of the use of energy from renewable sources, referred to as the Renewable Energy Directive (RED), incorporates an advanced binding sustainability scheme for biofuels and bioliquids for the European market. The RED contains binding sustainability criteria to greenhouse gas savings, land with high biodiversity value, land with high carbon stock and agro-environmental practices. Several articles in the RED present requirements to European Member States and to economic operators in Europe. Non-EU countries may have different requirements and criteria on, for instance, the GHG emission reduction set-off.

The sustainability criteria are also mandated in Directive 98/70/EC [15] relating to the quality of petrol and diesel fuels, via the amending Directive 2009/30/EC [2] (as regards the specification of petrol, diesel and gas-oil and introducing a mechanism to monitor and reduce greenhouse gas emissions). Directive 98/70/EC is referred to as the Fuels Quality Directive (FQD).

〚A1〉 Directive 2015/1513 [3], referred to as the ILUC Directive, amends both the RED and the FQD. 〈A1〛

In May 2009, the European Commission requested CEN to initiate work on standard(s) on:

— the implementation, by economic operators, of the mass balance method of custody chain management;

— the provision, by economic operators, of evidence that the production of raw material has not interfered with nature protection purposes, that the harvesting of raw material is necessary to preserve grassland's grassland status, and that the cultivation and harvesting of raw material does not involve drainage of previously undrained soil;

— the auditing, by Member States and by voluntary schemes of information submitted by economic operators.

Both the EC and CEN agreed that these may play a role in the implementation of the EU biofuel and bioliquid sustainability scheme. In the Communication from the Commission on the practical implementation of the EU biofuels and bioliquids sustainability scheme and on counting rules for biofuels (2010/C 160/02, [27]), awareness of the CEN work is indicated.

It is widely accepted that sustainability at large encompasses environmental, social and economic aspects. The European Directives make mandatory the compliance of several sustainability criteria for biofuels and bioliquids. This European Standard has been developed with the aim to assist EU Member States and economic operators with the implementation of EU biofuel and bioliquids sustainability requirements mandated by the European Directives. This European Standard is limited to certain aspects relevant for a sustainability assessment of biomass produced for energy applications. Therefore compliance with this standard or parts thereof alone does not substantiate claims of the biomass being produced sustainably.

Where applicable, the parts of this standard contain at the end an annex that informs the user of the link between the requirements in the European Directive and the requirements in the CEN Standard.

1 Scope

This European Standard defines the terminology to be used in the field of sustainability criteria for the production of biofuels and bioliquids for energy applications. A1⟩ This document specifically considers some relevant terms and definitions used in the European Commission Directive 2009/28/EC [1], referred to as Renewable Energy Directive (RED), and in the European Commission Directive 2009/30/EC [2] referred to as Fuel Quality Directive (FQD), both amended by European Parliament and Council Directive 2015/1513, referred to as the ILUC Directive [3], or in other European regulations.

NOTE This edition of the standard does not cover the requirements in Directive 2018/EU/2001, the recast of the Renewable Energy Directive (referred to as RED II). ⟨A1

2 A1⟩ Normative references

There are no normative references in this document. ⟨A1

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

A1⟩ ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at http://www.electropedia.org/
- ISO Online browsing platform: available at http://www.iso.org/obp ⟨A1

3.1
accreditation
third-party attestation related to a conformity assessment body conveying formal demonstration of its competence to carry our specific conformity assessment tasks

[SOURCE: EN ISO/IEC 17000:2004, 5.6]

3.2
accreditation body
authoritative body that performs accreditation

Note 1 to entry: The authority of an accreditation body is generally derived from government.

[SOURCE: EN ISO/IEC 17000:2004, 2.6]

3.3
actual value
greenhouse gas emission or greenhouse gas emission savings for some or all of the steps of a specific biofuel production process calculated in accordance with a methodology compliant with applicable regulations

Note 1 to entry: As per 2009/28/EC [1].

Note 2 to entry: See also default value (3.29), disaggregated default value (3.30), typical value (3.87).

3.4
agricultural, aquaculture, fisheries and forestry residues
residues (3.75) that are directly generated by agriculture, aquaculture, fisheries and forestry; they do not include residues from related industries or processing.

Note 1 to entry: List of feedstocks and fuels whose contribution towards the target are considered by Directive 2015/1513 [3] to be twice their energy content can be found in Annex IX of that Directive.

[SOURCE: Directive 2015/1513]

3.5
agro-biodiversity
component of biodiversity that contributes to food and agriculture production, encompassing within species, species and ecosystem diversity

Note 1 to entry: Derived from FAO Glossary WFE 2005.

3.6
allocation
partitioning the input or output flows of a process or a product system between the product system under study and one or more other product systems

[SOURCE: EN ISO 14040:2006, 2.17]

3.7
area for nature protection purposes

area designated by law or other equivalent competent legal authority for the long-term conservation of nature with associated ecosystem services and biodiversity values

Note 1 to entry: Within MCPFE classification long-term is minimum 20 years for forests and can be different in other ecosystems and regions [6].

Note 2 to entry: Some clauses or elements of classification schemes might fall out under this definition, for example IUCN scheme [7].

3.8
audit
systematic, independent and documented process for obtaining evidence and evaluating it objectively to determine the extent to which the criteria are fulfilled

Note 1 to entry: to entry: Internal audits, sometimes called first-party audits, are conducted by, or on behalf of, the organization itself for management review and other internal purposes, and may form the basis for an organization's self-declaration of conformity. In many cases, particularly in smaller organizations, independence can be demonstrated by the freedom from responsibility for the activity being audited.

Note 2 to entry: to entry: Adapted from EN ISO 19011:2011 [8].

3.9
biofuel
liquid or gaseous fuel for transport produced from biomass

Note 1 to entry: As per 2009/28/EC [1].

Note 2 to entry: List of feedstocks and fuels whose contribution towards the target are considered by Directive 2015/1513 [3] to be twice their energy content can be found in Annex IX of that Directive

3.10
biofuel producer
organization or unit responsible for the production of the biofuel

Note 1 to entry: Adapted from EN 14588:2010 [9].

3.11
biofuel production
transformation of biomass or of an intermediate product derived from biomass into a biofuel

3.12
bioliquid
liquid fuel for energy purposes other than for transport, including electricity and heating and cooling, produced from biomass

Note 1 to entry: As per 2009/28/EC [1].

Note 2 to entry: Includes viscous liquids such as waste cooking oil, animal fats, palm oil, crude tall oil and tall oil pitch.

3.13
bioliquid production
transformation of biomass or of an intermediate product derived from biomass into a bioliquid

3.14
biomass
biodegradable fraction of products, waste and residues from biological origin from agriculture (including vegetal and animal substances), forestry and related industries including fisheries and aquaculture, as well as the biodegradable fraction of industrial and municipal waste

Note 1 to entry: As per 2009/28/EC [1].

Note 2 to entry: The following definition is used in EN 14588:2010 [9]: material of biological origin excluding material embedded in geological formations and/or transformed to fossil.

3.15
blending
process of defined intentional mixing of a biofuel or a bioliquid with a fossil fuel or of a biofuel with a biofuel or a bioliquid with a bioliquid

Note 1 to entry: See also mixture (3.57).

3.16
certificate
attestation document issued by an independent third-party certification body

[SOURCE: ISO 22222:2005, 2.2]

3.17
chain of custody
system by which a connection is made between information or claims concerning raw materials or intermediate products and claims concerning final products, including all the stages from the raw material production up until the release of the final product for consumption

3.18
combined heat and power
CHP
simultaneous generation in one process of thermal energy and electrical and/or mechanical energy

Note 1 to entry: As per 2004/8/EC [11].

Note 2 to entry: Synonymous term: cogeneration.

3.19
conformity assessment
set of procedures or activities intended to provide demonstration that specified requirements relating to a product, process, system, person or body are fulfilled

Note 1 to entry: Adapted from EN ISO/IEC 17000:2004 [4].

Note 2 to entry: See also first-party conformity assessment activity (3.34), second-party conformity assessment activity (3.77), third-party conformity assessment activity (3.86).

3.20
conformity assessment body
body that performs conformity assessment services

Note 1 to entry: An accreditation body is not a conformity assessment body.

[SOURCE: EN ISO/IEC 17000:2004, 2.5]

3.21
consignment
quantity of unfinished or finished product, consisting of one or more batches of the same sustainability characteristics, which is transferred from one economic operator to another one at the same time.

Note 1 to entry: Transfer from/to two economic operators involves two consignments.

3.22
continuously forested area
land spanning more than one hectare with trees higher than five metres and a canopy cover of more than 30 %, or trees able to reach those thresholds in situ

Note 1 to entry: As per 2009/28/EC [1].

Note 2 to entry: Excludes land that is predominantly under agricultural or urban land use.

Note 3 to entry: Land under agricultural use in this context refers to tree stands in agricultural production systems, such as fruit tree plantations, oil palm plantations, short rotation coppice and, agroforestry systems when crops are grown under tree cover.

Note 4 to entry: Includes managed forests with harvests and re-growth at intervals.

3.23
conversion
chemical, biological or physical process whereby biomass or an intermediate product is converted into a finished biofuel/bioliquid or into an intermediate product

3.24
co-processing
simultaneous conversion of feedstocks of different origins e.g. biomass and fossil feedstocks

3.25
co-product
substance or object resulting from a production process not being a product, residue or waste

Note 1 to entry: See also product (3.68), residue (3.75) and waste (3.91).

3.26
CO_2 equivalent
unit for comparing the time integral of radiative forcing of a GHG to carbon dioxide

Note 1 to entry: The carbon dioxide equivalent is calculated using the mass of a given GHG multiplied by its global warming potential. [ISO 14064-1:2006 [13]]

3.27
criterion
state or property as a means of judging whether or not a principle has been fulfilled

Note 1 to entry: See also sustainability criteria (3.84).

3.28
crop-based fuels
biofuels and bioliquids produced from cereal and other starch-rich crops, sugars and oil crops and from crops grown as main crops primarily for energy purposes on agricultural land

Note 1 to entry: to entry: Derived from Directive 2015/1513, Article 2

3.29
default value
greenhouse gas emission or greenhouse gas emission savings derived from a *typical value* by the application of pre-determined factors, which may be used in place of an *actual value* as specified in applicable regulations

Note 1 to entry: As per 2009/28/EC [1].

Note 2 to entry: See also actual value (3.3), disaggregated default value (3.30), typical value (3.87).

3.30
disaggregated default value
greenhouse gas emission for a specific part of the supply chain derived from a default value.

Note 1 to entry: See also actual value (3.3), default value (3.29), typical value (3.87)

3.31
distribution
set of operations or activities to supply biofuels or bioliquids or their blends from their delivery to the fuel supplier and up to the final customer

3.32
economic operator
individual or organisation which has ownership or physical control of biomass, intermediate products and products produced thereof, from the origin to the market availability of the biofuel or bioliquid for one or several steps in the (biofuel or bioliquid) chain of custody

3.33
ecosystem
dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit

3.34
first-party conformity assessment activity
conformity assessment activity that is performed by the person or organization that provides the object

Note 1 to entry: The expression "object of conformity assessment" or "object" is used in this standard to encompass any particular material, product, installation, process, system, person or body to which conformity assessment is applied.

Note 2 to entry: Adapted from EN ISO/IEC 17000:2004 [4].

3.35
forest
land spanning more than 1 ha[1)] with trees higher than 5 m and a canopy cover of more than 10 %, or trees able to reach these thresholds in situ, not including land that is predominantly under agricultural or urban land use

Note 1 to entry: Forest is determined both by the presence of trees and the absence of other predominant land uses. The trees should be able to reach a minimum height of 5 m in situ.

Note 2 to entry: Includes areas with young trees that have not yet reached but which are expected to reach a canopy cover of 10 % and tree height of 5 m. It also includes areas that are temporarily unstocked due to clear cutting as part of a forest management practice or natural disasters, and which are expected to be regenerated within five years. Local conditions may, in exceptional cases, justify that a longer time frame is used.

Note 3 to entry: Includes forest roads, firebreaks and other small open areas; forest in national parks, nature reserves and other protected areas such as those of specific environmental, scientific, historical, cultural or spiritual interest.

Note 4 to entry: Includes windbreaks, shelterbelts and corridors of trees with an area of more than 0,5 ha and width of more than 20 m.

Note 5 to entry: Includes abandoned shifting cultivation land with a regeneration of trees that have, or is expected to reach, a canopy cover of 10 % and tree height of 5 m.

Note 6 to entry: Includes areas with mangroves in tidal zones, regardless whether this area is classified as land area or not.

Note 7 to entry: Excludes rubber-wood, cork oak and Christmas tree plantations with a fixed rotation cycle.

Note 8 to entry: Includes areas with bamboo and palms provided that land use, height and canopy cover criteria are met.

Note 9 to entry: Excludes tree stands in agricultural production systems, such as fruit tree plantations, oil palm plantations, short rotation coppice, and agroforestry systems when crops are grown under tree cover.

Note 10 to entry: Some agroforestry systems such as the "Taungya" system where crops are grown only during the first years of the forest rotation should be classified as forest.

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1) The FAO source document [14] contains a value of 0,5 ha. The value has been adapted according to the RED [1].