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Sustainability criteria for bioenergy

Critères de durabilité pour la bioénergie

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is Project Committee ISO/PC 248, *Sustainability criteria for bioenergy*.

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Introduction

The production and use of bioenergy have potential roles in mitigating climate change, promoting energy security and fostering sustainable development. This International Standard is designed to provide a consistent basis on which the sustainability of bioenergy can be assessed within a defined context and for a specified purpose. This International Standard provides principles, criteria and indicators. The principles reflect aspirational goals while the criteria and indicators address sustainability aspects and the information that is to be provided. However, the indicators in this International Standard might not comprehensively capture all sustainability aspects for all bioenergy processes.

Virtually every country in the world uses some form of bioenergy. Various types of biomass are used for the production of bioenergy through many types and sizes of economic operations. The characteristics of bioenergy production therefore are heterogeneous and depend on several factors, such as geography, climate, level of development, institutions and technologies.

The purpose of this International Standard is to provide a framework for considering environmental, social and economic aspects that can be used to facilitate the evaluation and comparability of bioenergy production and products, supply chains and applications. As part of the development of this International Standard, other relevant sustainability initiatives and International Standards were considered.

This International Standard aims to facilitate the sustainable production, use and trade of bioenergy and will enable users to identify areas for continual improvement in the sustainability of bioenergy. It can be used in several ways. It can facilitate business-to-business communications by providing a standard framework that allows businesses to "speak the same language" when describing aspects of sustainability. Purchasers can use this International Standard to compare sustainability information from suppliers to help identify bioenergy processes and products that meet their requirements. Other standards, certification initiatives and government agencies can use this International Standard as a reference for how to provide information regarding sustainability.

This International Standard does not provide threshold values. Threshold values can be defined by economic operators in the supply chain and/or other organizations (e.g. government). Sustainability information provided through the use of this International Standard can then be compared with defined threshold values.

In International Standards, the following verbal forms are used:

— "shall" indicates a requirement;

— "should" indicates a recommendation;

— "may" indicates a permission;

— "can" indicates a possibility or a capability.

Further details can be found in the ISO/IEC Directives, Part 2.

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Sustainability criteria for bioenergy

1 Scope

This International Standard specifies principles, criteria and indicators for the bioenergy supply chain to facilitate assessment of environmental, social and economic aspects of sustainability.

This International Standard is applicable to the whole supply chain, parts of a supply chain or a single process in the supply chain. This International Standard applies to all forms of bioenergy, irrespective of raw material, geographical location, technology or end use.

This International Standard does not establish thresholds or limits and does not describe specific bioenergy processes and production methods. Compliance with this International Standard does not determine the sustainability of processes or products.

This International Standard is intended to facilitate comparability of various bioenergy processes or products. It can also be used to facilitate comparability of bioenergy and other energy options.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/TS 14067:2013, *Greenhouse gases — Carbon footprint of products — Requirements and guidelines for quantification and communication*

3 Terms and definitions

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

3.1
allocation
partitioning the input or output flows of a *process* (3.36) or a *product system* (3.38) between the product system under study and one or more other product systems

[SOURCE: ISO 14040:2006, 3.17]

3.2
biodiversity
biological diversity
variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic *ecosystems* (3.14) and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems

[SOURCE: United Nations Convention on Biological Diversity[27]]

3.3
bioenergy
energy derived from *biomass* (3.4)

Note 1 to entry: Biomass can be processed into solid, liquid or gaseous fuels or stored energy in biomass can be directly converted into other forms of energy (e.g. heat, light).

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