ISO 13065:2015-09 (E)

Sustainability criteria for bioenergy

Contents

Page

Foreword v

Introduction vi

1 Scope 1

2 Normative references 1

3 Termsanddefinitions 1

4 General requirements and recommendations 9
4.1 General 9
4.2 Purpose and context 9
4.3 Scope of assessment 9
4.4 Stakeholder involvement 9
4.5 Relevance and significance 10
4.6 Recording of legal requirements 10
4.7 Time periods 11
4.8 Science-based approach 11
4.9 Data and information 11
4.10 Traceability 12
4.11 Comparability 12
4.12 Direct and indirect effects 13
4.13 Ecosystem services 13

5 Principles, criteria and indicators 13
5.1 General 13
5.2 Environmental principles, criteria and indicators 13
5.2.1 GHG 13
5.2.2 Water 14
5.2.3 Soil 14
5.2.4 Air 15
5.2.5 Biodiversity 15
5.2.6 Energy efficiency 16
5.2.7 Waste 16
5.3 Social principles, criteria and indicators 17
5.3.1 Human rights 17
5.3.2 Labour rights 17
5.3.3 Land use rights and land use change 19
5.3.4 Water use rights 19
5.4 Economic principle, criteria and indicators 20
5.4.1 Economic sustainability 20

6 Greenhouse gas methodologies, assessments and comparisons 20
6.1 General 20
6.2 Special considerations for time periods for GHG assessments 21
6.2.1 General 21
6.2.2 Reference system 21
6.3 Assigning GHG emissions or GHG removals from carbon stock change in biomass and soil to the bioenergy product 22
6.4 Other climate-forcing agents 22
6.5 Functional and delivered units 22

6.6 Treatment of co-products in a GHG quantification 23
6.6.1 General 23
6.6.2 Procedures for treatment of co-products 23
6.7 Treatment of waste 24
6.8 System boundaries 24
6.9 Process for comparison to determine GHG reduction 24

Annex A (informative) Example format for summarizing information 25

Annex B (informative) Guidance related to water indicators 30

Annex C (informative) Guidance related to soil indicators 34

Annex D (informative) Guidance related to air indicators 39

Annex E (informative) Guidance related to biodiversity indicators 43

Annex F (informative) Guidance related to waste indicators 47

Annex G (informative) Child labour (text from ISO 26000:2010) 51

Annex H (informative) Greenhouse gas 52

Bibliography 55