

Assessment of KZR INiG System

Version as submitted 11 December 2013

Summary

An assessment has been made on compliance of the *KZR INiG System* (hereafter the “KZR scheme”) as submitted to the European Commission for recognition, with the sustainability criteria of Directive 2009/28/EC.

The assessment results indicate that the KZR scheme meets the mandatory sustainability requirements of Directive 2009/28/EC (RED) on GHG, land-use, chain of custody and audit quality.

Scheme scope:

- Feedstock: Raw materials cultivated and harvested, as well as wastes and residues collected, for biofuel and bioliquid production. **Commission recognition would only concern biofuels covered under the scheme.**
- Geography: EU only.
- Whole fuel chain including: Cultivation, processing, transport, conversion, trade.

Background

The KZR scheme has been developed and is administered by the Oil and Gas Institute of Poland (INiG), based in Krakow. The implementation of the scheme is intended to provide economic operators, particularly those in Poland, operating in the supply chain of biofuels, bioliquids and biocomponents, with a possibility to prove that they meet the sustainability requirements of the RED.

The KZR scheme has been developed taking into account the legal system of the Republic of Poland. The scheme owners say the KZR scheme is based on specific national laws in the scope of both the assessment of biomass cultivation from the perspective of land use and good agricultural practice, and realisation of international labour conventions (listed in Article 17(7) of the RED).

Please note this assessment focuses on coverage of the mandatory criteria, Articles 17(2)-(5). Coverage of the criteria that are ‘non-mandatory’ for economic operators, Article 18(4), is not part of this assessment at this time.

Documents assessed

- System_KZR_INiG_1: Description of INiG System of Sustainability Criteria – general rules
- System_KZR_INiG_2: Definitions
- System_KZR_INiG_4: Land use for biomass production – lands with high carbon stock
- System_KZR_INiG_5: Land use for biomass production – biodiversity
- System_KZR_INiG_7: Guidance for proper functioning of mass balance system

- System_KZR_INiG_8: Guidelines for determination of lifecycle per unit values of GHG emissions for biofuels, bioliquids, biocomponents
- System_KZR_INiG_9: Requirements for Certification Bodies
- System_KZR_INiG_10: Guidelines for auditor and conduct of audit

The following documents were submitted, but were not assessed:

- System_KZR_INiG_3: Reference with national legislation
- System_KZR_INiG_6: Land use for biomass production – agricultural and environmental requirements and standards

Assessment results

The summary results of the assessment are presented in Table 1 below. The detailed assessment results are available in Annex 1.

Table 1: Assessment results - summary

RED Article	KZR	Comments
	Version as submitted 11 December 2013	
Sustainability criteria		
17(2): Greenhouse gas emissions savings	Y	
17(3): Conservation of biodiversity	Y	
17(4): Conservation of carbon stocks	Y	
17(5): Conservation of peatlands	Y	
17(1): Exemption for wastes and residues	Y	
Chain of Custody		
18(1): Use of a mass balance system	Y	
Recognition of other voluntary schemes	Y	
Audit Quality		
18(3): Adequate standard of independent auditing	Y	

Annex 1: Detailed assessment results

Sustainability criteria

The sustainability criteria detailed below are the mandatory sustainability criteria of the RED: Article 17(2) – 17(5)). It is intended that it will be possible for a scheme to be recognised for compliance with individual Articles under the RED.

Article 17(2): Greenhouse gas emissions savings	The use and production of biofuels and bioliquids should lead to reductions in greenhouse gas emissions compared to fossil fuels	
Requirement	Guidance	Assessment
1.1 The greenhouse gas emission saving from the use of biofuels and bioliquids shall be at least 35%.	<ul style="list-style-type: none"> In the case of biofuels and bioliquids produced by any installation¹ that was in operation on 23 January 2008, the 35% greenhouse gas saving threshold needs to apply from 1 April 2013, and may also apply before that date. Greenhouse gas emissions from any land-use change that has occurred since 1 January 2008 shall be taken into account in the greenhouse gas calculation, according to the methodology in the RED Annex V. 	<p style="text-align: center;">Y</p> <ul style="list-style-type: none"> KZR_INiG_8: Guidelines for determination of lifecycle per unit value of GHG emissions for biofuels [...]: <ol style="list-style-type: none"> Introduction: <ul style="list-style-type: none"> Article 17(2) of [...], defines one of the sustainability criteria pertaining to ability of biofuels/ bioliquids/ to limit GHG emission. According to this article, GHG emission savings achieved by the use of biofuels/bioliquids amounts to at least 35% compared to their relevant fossil fuel comparator. Starting from 1.01.2017, this value will increase to 50%. In the case of biofuels and bioliquids produced by installations that were operating on 23.01.2008,

¹ The term "installation" includes any processing installation used in the production process, as long as it has not been intentionally added to the production chain only to qualify for the exemption.

			<p>the requirement of the GHG emission saving will be valid from 1.04.2013. After that date all biofuel and bioliquid (regardless of the biofuel / feedstock production date) in order to meet sustainability criteria, according to KZR INiG system, need to pass mentioned GHG threshold. From 1.01.2018, GHGs emissions savings will amount to at least 60% for biofuels and bioliquids produced in installations which have started production on 1.01.2017 or later.</p> <ul style="list-style-type: none"> • KZR_INiG_7: Guidance for proper functioning of mass balance system • 4. Guidelines on the construction of a mass balance system in a unit: • The mass balance system shall give consideration to data on GHG of all compliant batches in a given accounting period, excluding emissions that are ascribed to part that does not comply with sustainability requirements. • Only compliant batches, lots of consignment shall be accounted for in GHG emission balance. According to KZR INiG system it is not permitted for GHG emissions to be averaged across different batches.
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<p>1.2 The greenhouse gas emission saving from the use of biofuels and bioliquids shall be calculated in accordance with RED Article 19(1)-19(3), Annex V and Commission Decision 2010/335/EU of 10 June 2010.</p>		<p>Y</p> <ul style="list-style-type: none"> • KZR_INiG_8: Guidelines for determination of lifecycle per unit value of GHG emissions for biofuels [...]: • 1. Introduction: • Annex V Part C of the RED provides the following equation [1] for calculation of the saving mentioned above: $SAVING = (EF-EB)/EF$ • EF is the newest available actual average GHG emission value of the fossil part of gasoline and diesel oil formulations for the area of the European Union, reported under Directive 98/70/EC (FQD). If the latest data is not available, value of 83,8 gCO₂eq/MJ is used, [...]. • 4.1 Conditions for the use of default, actual values, according to the RED • Article 19.1 of the RED "Calculation of the greenhouse gas impact of biofuels and bioliquids" provides the following methods of calculation of greenhouse gas emissions in the biofuel lifecycle: [Article 19.1 inserted.] • Re a) The default values [...] may be used only when their raw materials were: - cultivated outside the European Community; - cultivated in the Community in areas included in the list of the areas classified as level 2 in the nomenclature of territorial units for statistics (NUTS) [further detail from Article 19.1 (2) inserted]; - waste or residues other than agricultural, aquaculture and fisheries residues. • Re b) Actual values of greenhouse gases emissions
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		<ul style="list-style-type: none"> • resulting from the production of biofuels, may be used in every case. • Re c) The RED allows also to use a sum of disaggregated of default values and calculated actual values. • 4.2 Calculation of actual values of GHG emissions in lifecycle of biofuels/biocomponents • 4.2.1 Credibility of data sources • In the case when data are gathered from external sources (secondary data), particular care should be kept in order to maintain their transparency and proper documentation of their origin. Literature data, collected for particular needs, should originate from commonly available sources, be well documented and transparent. • Below is a recommended list of literature: • - Ecoinvent : http://www.ecoinvent.org • - Biograce : http://www.biograce.net • - GEMIS: http://www.oeko.de • Data concerning land use: • - IPCC Good practice guidance: http://www.ipcc-nggip.iges.or.jp • Data concerning artificial fertilizers and chemicals used in agriculture: • - EFMA: http://www.efma.org. • 4.2.2 Applicable units • [...] In practice, it is hard to define the emissions generated at particular stages of biomass processing in relation to energy contained in the biofuel,
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		<p>if the final destination of the biomass is not known. In such case, GHG emissions are expressed in a unit, in which the product is accounted at respective stage of production (it may be in mass or volume).</p> <ul style="list-style-type: none"> • 4.2.3 System boundaries • [...] The significance of the input data in the general GHG balance, and completeness and quality of the values collected from other sources, are the guidelines. Any emissions from land use change (e) that has occurred since 1 January 2008 are taken into account. • In the performance of some technological processes, small quantities of raw materials and reagents are utilized (e.g. antifoam agents, corrosion inhibitors, water treatment chemicals). Influence of these streams in GHG emission results is slight, and it may be omitted if adjusted with a verifier. In such cases, the rule recommended for evaluation of magnitude of influence of component data on the result, reads that if this value does not influence the value of the biofuel's ability to limit GHG emission saving rounded to one percentage point, the given factor may be disregarded. • 4.2.4 Actual value calculation • Actual value of GHG emission in biofuels lifecycle is calculated according to the following equation: [RED equation inserted.] • GHG emission from energy consumption • In the case of calculation of GHG emission generated
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		<p>in a set periodic inventory period (set by economic operator, maximum 3 months) in connection with using particular energy source, the following equation is used:</p> <ul style="list-style-type: none"> • When calculating GHG emissions generated by the consumption of electricity not produced in the fuel production plant, the GHG emission intensity of the production and distribution of that electricity shall be assumed to be equal to the average emission intensity of the production and distribution of electricity in a defined region. In the case of the EU the most logical choice is the whole EU. In the case of third countries, where grids are often less linked-up across borders, the national average is the appropriate choice. By derogation from this rule, producers may use an average value for an individual electricity production plant for electricity produced by that plant, if that plant is not connected to the electricity grid. • 4.2.4.1 Emissions from the extraction and cultivation of raw materials, e_{ec} • [Text from EC non-paper on aggregate values.] • Emissions from the extraction or cultivation of raw materials, e_{ecr}, shall include emissions from the extraction or cultivation process itself, from using engine fuels for agricultural machinery and other vehicles, from the collection of raw materials, from waste and leakages, and from the production of chemicals or products used in extraction or
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			<p>cultivation. Sequestration of CO₂ in the cultivation of raw materials shall be excluded.</p> <ul style="list-style-type: none">• Estimates of emissions from cultivation may be derived from the use of averages calculated for smaller geographical areas than those used in the calculation of the default values, as an alternative to using actual values. In the case of lack of default values, actual values shall be used.• The inputs/variables that affect emissions from cultivation will typically include seeds, biomass yield per area unit, biomass parameters (e.g. moisture content), type of fuel and fuel consumption during cultivation and extraction, quantities and types of fertilizers, plant pesticides, herbicides or other chemicals used, quantities of co-products and other data [...].• An appropriate way to take into account N₂O emissions from soils is the IPCC methodology, including what are described there as both 'direct' and 'indirect' N₂O emissions. All three IPCC tiers could be used by economic operators. Tier 3, which relies on detailed measurement and/or modelling, seems more relevant for the calculation of 'regional' cultivation values than for the calculation of actual values.• Annual emissions from carbon stock changes caused by land-use change, e_l, shall be calculated by dividing total emissions equally over 20 years. For the calculation of those emissions the following rule
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		<ul style="list-style-type: none"> • shall be applied [RED equation included]. • The bonus of 29 gCO_{2eq}/MJ shall be attributed if evidence is provided that the land: [RED, Annex V, C, points 8 & 9 inserted.] The definition of “degraded land” is not yet finalized from the EC. Until a time as the definition of degraded land is finalized, there is no possibility to recognize allocation of the 29 gCO_{2eq}/MJ biofuel bonus for degraded land (E_B) • 4.2.4.3 Emissions from processing, e_p • Emissions from processing, e_p shall include emissions from the processing itself; from waste and leakages; and from the production of chemicals or products used in processing. • [Text from EC non-paper on aggregate values.] • According to Communication⁸ (see section 3.3) it would not seem necessary to include in the calculation inputs which will have little or no effect on the result, such as chemicals used in low amounts in processing. Values of GHG emission savings are rounded to the nearest percentage point. • Co-processing of biomass with fossil fuel material • Some processes of biomass conversion may be carried out simultaneously with processing of fossil raw material. [...] GHG emissions generated at this and the following stages of processing should be allocated to both product of biological origin, and fractions from fossil parts. [Allocation of GHG emissions by energy content.]
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		<ul style="list-style-type: none"> • 4.2.4.3 Emissions from transport and distribution, e_{td}, shall include emissions from transport and storage of raw and semi-finished materials and from the storage and distribution of finished materials. Emissions from on-farm transport and distribution allocated to crops cultivation or raw material extraction shall not be covered by this point. • It is, that in the INiG certification system, disaggregated default values for transport stage are ultimately used for calculation of GHG emissions. • 4.2.4.6 Emissions from the fuel in use, e_u, shall be taken to be zero for biofuels and bioliquids. • 4.2.4.7 Emission saving from excess electricity from cogeneration, e_{ee}, shall be taken into account with reference to the excess electricity produced by fuel production systems that use cogeneration, except where the fuel used for the cogeneration is a co-product other than an agricultural crop residue. • [Relevant info from EC Communication 2010/C 160/02, Annex II included.] • The GHG emission saving associated with that excess electricity shall be taken to be equal to the amount of GHG that would be emitted when an equal amount of electricity was generated in a power plant using the same fuel as the cogeneration unit. • 4.4 Allocation of GHG emissions to co-products and waste • GHG emission is allocated between the main product
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		<p>(biofuel, processed biomass, processed biomass for biofuels production) and co-products, based on energy content of the individual streams, according to the equation: [...]</p> <ul style="list-style-type: none"> • The lower heating value used in applying this rule shall be that of the entire (co-)product, not of only the dry fraction of it. In many cases, however, notably in relation to nearly-dry products, the latter could give a result that is an adequate approximation. • Co-products • [...] In the case when co-products are taken into account in calculations, emissions to be allocated are: $e_{ec} + e_i$ + these parts of e_p, e_{td} and e_{ee}, which take place before the phase of production, in which co-product forms, and during this phase. If, in relation to these co-products, any emissions have been allocated to earlier production phases in the lifecycle, only the part of emissions allocated to intermediate fuel product in the last production phase is taken into account, not the whole emissions. • For biofuels and bioliquids, all co-products are taken into account in calculations, including electricity omitted in e_{ee} with exclusion of agricultural crop residue, including straw, bagasse, husk, cobs and nutshells). In the calculations, for co-products with negative energy value it is assumed that they have zero energy value.
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		<ul style="list-style-type: none"> • Wastes, agricultural crop residues, including straw, bagasse, husks, cobs and nut shells, and residues from processing, including crude glycerine (glycerine that is not refined), shall be considered to have zero life-cycle GHG up to the process of collection of those materials. • Waste and residues • [See section below on Article 17(1): Exemption from wastes and residues.] • 4.5 Usage of default values • If the conditions defining usage of default values are met, biofuels, bioliquids, biocomponents manufacturers may indicate the default GHG emission saving shown below for indicated biofuels production pathways, presented in Table 3. • Tables 2-10 [Tables of Default values and GHG savings, Disaggregated default values] • The values listed in table (3-11) based on the RED. In the case when EC makes any changes to the default values or the GHG methodology, then these changes will be reflected with immediate effect in the KZR INiG System. Any changes to the GHG methodology shall be notified to the Commission without delay. • KZR_INiG_4: Land use for biomass production – lands with high carbon stock: • 4.4 Land use change • The term „land use changes“, should be understood
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		<p>as referring to changes in terms of land cover between the six land categories used by the IPCC ^{viii} (forest land, grassland, cropland, wetlands, settlements and other land) plus a seventh category of perennial crops, i.e. multi-annual crops whose stem is usually not annually harvested such as short rotation coppice and oil palm. This means, for example, that a change from grassland to cropland is a land-use change, while a change from one crop (such as maize) to another (such as rapeseed) is not.</p> <ul style="list-style-type: none"> • In order to determine the carbon stock per a unit of surface area with ascribed values of CS_R and CS_A, the following rules should be followed^x: • the area for which the land carbon stocks are calculated shall for the entire area have similar: - biophysical conditions in relation to climatic zone and soil types; - history of land management; - history of change in carbon stock level in the soil. • The following is considered a carbon stock at actual land use, CS_A: - in the case of decrease in carbon stock – <i>the estimated equilibrium carbon stock that the land will reach in its new use</i>; - in the case of carbon stock accumulation – <i>the estimated carbon stock after 20 years or when the crop reaches maturity, whichever the earlier.</i> • 4.4.1.1 Calculation of SOC • According to Commission Decision 2010/335/EU, for
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			<p>mineral soils organic carbon in the soil is calculated using the following formula: [formula and definitions provided]</p> <ul style="list-style-type: none"> • KZR_INiG_5: Land use for biomass production – lands with high carbon stock: • „Land-use change“ should be understood as changes occurring in reference to the status of the area surface. For example, a change of pasture to cropland is a change in land use, as opposed to a transition from cultivation of one plant (such as corn) to another one (such as rape). Croplands include also fallow lands (fallow land is land that has been left fallow for 5 years only). <u>A change in management activities, tillage practice or manure input practice is not considered a change in land use.</u>
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Article 17(3): Conservation of biodiversity	Biofuels and bioliquids shall not be made from raw material obtained from land with high biodiversity value	
Requirement	Guidance	Assessment
2.1 Conservation of primary forest and other wooded land	<ul style="list-style-type: none"> • Biofuels and bioliquids shall not be made from raw material obtained from land that was primary forest or other wooded land in or after January 2008, 	<p>Y</p> <ul style="list-style-type: none"> • KZR_INiG_5: Land use for biomass production – biodiversity: • 1. Introduction: • According to the KZR INIG System, biofuels and

	<p>whether or not the land continues to have that status</p> <ul style="list-style-type: none"> • Primary forest and other wooded land is defined as forest and other wooded land of native species, where there is no clearly visible indication of human activity and the ecological processes are not significantly disturbed. 	<p>bioliquids shall not be produced from raw materials cultivated and harvested from land with high biodiversity values. According to Directive 2009/28/EC (RED) this land is namely land that had one of the following statuses in or after 1st January 2008, whether or not the land continues to have that status:</p> <ul style="list-style-type: none"> ○ a) primary forests and other primary wooded lands; ○ b) areas designated for specific nature protection purposes; ○ c) highly biodiverse grasslands; <ul style="list-style-type: none"> • For nature protection areas an exception is possible, as discussed in section 4.2. • [Above text has not been repeated in sections 2.2 and 2.3 below.] • 4. Description and requirements • 4.1 Primary forests and other primary wooded lands: • Biofuels and bioliquids shall not be made from raw material obtained from land with high biodiversity value, namely land that had primary forests and other primary wooded lands statuses in or after 1st January 2008, whether or not the land continues to have that status primary forest and other wooded land, namely forest and other wooded land of native species, where there is no clearly visible indication of human activity and the ecological processes are not significantly disturbed
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		<ul style="list-style-type: none"> • Agriculture producers shall provide that the land, from which the raw materials for biofuels or bioliquids production have been obtained, does not have a status of primary forests and other wooded lands (e.g. natural forests). The example of acceptable evidence has been shown in section 6.1.1. For example an excerpt from cadastral register or aerial photograph of the land showing it to be planted with defined raw materials. To prove that the land was not a primary forest after 1st January 2008 the date of the excerpt from the land register (containing information about land purpose) need to relate back to this date. • 6.1.1 Primary forests and other primary wooded lands: Guidance provided on forms of evidence. • The criteria refer to the status of the land in 1st January 2008. The use of earlier evidence is not ruled out. For example, if it is shown that land was cropland a little earlier than 2008, e.g. in 2005, this may be enough to show compliance with some or all of the land-related criteria. • KZR_INiG_2: Definitions: • Primary forest and other wooded land: forest and other wooded land of native species where there is no clearly visible indication of human activity and the ecological processes are not significantly disturbed (based on article 17(3a) of the RED).
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<p>2.2 Conservation of protected areas</p>	<ul style="list-style-type: none"> • Biofuels and bioliquids shall not be made from raw material obtained from land that was a protected area in or after January 2008, whether or not the land continues to have that status. • This includes areas designated: <ul style="list-style-type: none"> i) by law or by the relevant competent authority for nature protection purposes; or ii) for the protection of rare, threatened or endangered ecosystems or species recognised by international agreements or included in lists drawn up by intergovernmental organisations or the International Union for the Conservation of Nature, subject to their recognition in accordance with the second subparagraph of Article 18(4) of the RED; • An exception is possible if evidence is provided that the production of that raw material did not interfere with those nature protection purposes. 	<p>Y</p>	<ul style="list-style-type: none"> • KZR_INiG_5: Land use for biomass production – biodiversity: • 4.2 Areas designated for nature protection: • Biofuels and bioliquids shall not be made from raw materials obtained from land that was a protected area in or after 1st January 2008, whether or not the land continues to have the status of areas designates: <ul style="list-style-type: none"> ○ by law or by the relevant competent authority for nature protection purposes; or ○ for the protection of rare, threatened or endangered ecosystems or species recognised by international agreements or included in lists drawn up by intergovernmental organisations or the International Union for the Conservation of Nature, subject to their recognition in accordance with the second subparagraph of Article 18(4) of the RED; • Unless evidence is provided that the production of that raw materials did not interfere with those nature protection purposes. • [...] It is allowed to cultivate the raw materials on lands that are designated for nature protection as long as the evidence is provided that the production of raw materials did not interfere with nature protection
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			<p>purpose in question. The example of acceptable evidence has been showed in section 6.1.2.</p> <ul style="list-style-type: none"> [...] The KZR INiG System will communicate to economic operators any details of lists on protected areas as soon as they are available from the EC. The standard documentation will be updated accordingly. KZR_INiG_2: Definitions: Designated areas/protected areas: area legally designated by lawⁱ or other equivalent competent legal authority for nature protection or areas designated for protection of rare, endangered or critically endangered ecosystems or species, considered as such per international treaties or included in lists prepared by inter-governmental organizations or International Union for Conservation of Nature, under condition that they are recognized according to article 18 (4, second paragraph) of the RED unless evidence is produced showing that production of raw materials does not infringe goals of nature protection; Protected area means also a geographically defined area which is designated or regulated and managed to achieve specific protection purposes (according to Convention on Biological Diversity)ⁱⁱ
2.3 Conservation of highly biodiverse grassland	<ul style="list-style-type: none"> Biofuels and bioliquids shall not be made from raw material obtained from land that was highly biodiverse grassland in or after January 2008, 	Y	<ul style="list-style-type: none"> KZR_INiG_5: Land use for biomass production – biodiversity: 4.3 Highly Biodiverse Grasslands: Biofuels and bioliquids shall not be made from raw

	<p>whether or not the land continues to have that status.</p> <p>Highly biodiverse grassland is defined as:</p> <p>i) natural, namely grassland that would remain grassland in the absence of human intervention and which maintains the natural species composition and ecological characteristics and processes;</p> <p>or</p> <p>ii) non-natural, namely grassland that would cease to be grassland in the absence of human intervention and which is species-rich and not degraded, unless evidence is provided that the harvesting of the raw material is necessary to preserve its grassland status²</p>	<p>materials obtained from land that was highly biodiverse grassland in or after 1st January 2008, whether or not the land continues to have that status. Highly biodiverse grassland is defined in document System KZR_INiG/2/Definitions.</p> <ul style="list-style-type: none"> • Natural highly biodiverse grassland is characterized by absence of human intervention and which maintains the natural species composition and ecological characteristics as well as processes. Raw materials shall not be harvested form areas declared as natural highly biodiverse grassland in 1st January 2008 or thereafter. [Please note typographical errors in this sentence.] • Non-natural grassland is characterized by the absence of human intervention and is species-rich and not degraded. The conversion of areas declared as non-natural grassland to crop land is prohibited if the period of absence of human activity is longer than 5 years. • Until definitions, criteria and geographic areas featuring grassland with high biodiversity are determined by the Commission, any conversion of grassland in or after 1st January 2008 is prohibited within the KZR INiG System. • 6.1.3: After the establishment of the criteria and geographic ranges by the European Commission to
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² The European Commission shall establish the criteria and geographic ranges to determine highly biodiverse grassland (RED 2009-28 EC Article 17(3c)). Further information is awaited following the Comitology process.

		<p>determine which grassland can be considered to be highly biodiverse natural or non-natural grassland, this standard documentation will be updated accordingly and resubmitted to the European Commission for approval. Until approval, the conversion of grassland will remain prohibited.</p> <ul style="list-style-type: none"> • KZR_INiG_2: Definitions: • Highly biodiverse natural grasslands: natural grasslands that would remain grassland in the absence of human intervention and which maintains the natural species composition and ecological characteristics and processes (definition based on article 17 3c) (i) of the RED). • Highly biodiverse non-natural grassland: non-natural grasslands that would cease to be grassland in the absence of human intervention and which is species-rich and not degraded, unless evidence is provided that the harvesting of the raw material is necessary to preserve its grassland status (definitions based on article 17 3c (ii) of the RED). • KZR_INiG_1: Description of INiG System of Sustainability Criteria – general rules: • 5. Criteria of KZR INiG System: • 2c) highly biodiverse grassland that is: - natural, namely grasslands that would remain grassland in the absence of human intervention and which maintains the natural species composition and
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			<p>ecological characteristics and processes; or - non-natural grasslands that would cease to be grassland in the absence of human intervention and which is species-rich and not degraded.</p> <ul style="list-style-type: none"> • The Commission shall establish the criteria and geographic ranges to determine which grassland shall be covered by point (c). Immediately upon the receipt of that information, the KZR INiG system will be updated and resubmitted to the European Commission for approval. Up to that time, criterion regarding highly biodiverse grassland will not be applied. • Until definitions, criteria and geographic areas featuring grassland with high biodiversity are determined by the Commission, any conversion of grassland in or after 1st January 2008 is prohibited within the KZR INiG System.
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Article 17(4): Conservation of carbon stocks	Biofuels and bioliquids shall not be made from raw material obtained from land with high carbon stock	
Requirement	Guidance	Assessment
3.1 Conservation of wetlands	<ul style="list-style-type: none"> • Biofuels and bioliquids shall not be made from raw material obtained from land that was wetland in January 2008 and no longer has that status 	<p>Y</p> <ul style="list-style-type: none"> • KZR_INiG_4: Land use for biomass production – lands with high carbon stock: • 1. Introduction: • According to KZR INiG Scheme, it is prohibited to

	<ul style="list-style-type: none"> • A wetland is land that is covered with or saturated by water permanently or for a significant part of the year • These provisions shall not apply if, at the time the raw material was obtained, the land had the same status as it had in January 2008 	<p>use raw materials obtained from categories of land listed below, unless status of these lands has changed in comparison with their status in 1st January 2008:</p> <ul style="list-style-type: none"> ○ a) wetlands ○ b) continuously forested areas ○ c) weakly forested areas ○ d) peatlands <ul style="list-style-type: none"> • [Above text has not been repeated in sections 3.2, 3.3, 3.4 and 4.1. below.] • Requirements concerned a-c are not applicable if during the harvesting period of the raw material, the land has had the same status as it had in 1st January 2008. In the case of peatland, an exception is possible, as discussed later in this document. • 4.1 Wetlands: • Biofuels and bioliquids shall not be made from raw material obtained from land with high carbon stock, namely land that had wetland status in 1st January 2008 and no longer has that status; wetlands, namely land that is covered with or saturated by water permanently or for a significant part of the year. • Designation of wetlands reflects designation of geographical boundaries of the area, that falls within the definition of „wetlands“. The wetlands boundaries are often not defined precisely: they are movable and can change depending on climate and current precipitation conditions. This influences the precision
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			<p>of the land status classification. For instance, seasonal changes of wetland boundaries influence the fact that the requirements for the assessment conducted on-site must be higher than for assessment of other types of agricultural land. For that reason this requirement applies to all wetlands, not only restricted to the wetlands included in the Convention on Wetlands of International Importance.</p> <ul style="list-style-type: none">• In such a case, it may be necessary to integrate data other than geospatial data with on-site assessments results.• The system participants, e.g. and especially: agriculture producers, first gathering points, broker (middleman) are obliged to, among other things:<ul style="list-style-type: none">○ prove that the land on which the raw material was cultivated and was obtained has not had a wetland status in 1st January 2008 or it has had such a status in 1st January 2008, but during harvest of the raw material, the land status has not changed;○ define status, boundaries and characteristic features of wetlands in 1st January 2008, together with indication of boundaries for raw materials production, existing or planned, within proximity of this place.• KZR_INiG_2: Definitions:
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			<ul style="list-style-type: none"> • Wetlands (water & swamp areas)ⁱ land that is covered with or saturated by water permanently or for a significant part of the year (according to RED Directive). For agriculture producer, they are a transition zone between terrestrial ecosystems located on higher elevation, and typically aquatic ecosystems. Areas included in List of Wetlands of International Importance, according to regulations of art. 2 Convention on Wetlands of International Importance especially as waterfowl habitatⁱⁱ, are of particular significance.
<p>3.2 Conservation of continuously forested areas</p>	<ul style="list-style-type: none"> • Biofuels and bioliquids shall not be made from raw material obtained from land that was continuously forested in January 2008 and no longer has that status • Continuously forested areas are defined as 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 <i>in situ</i> • Continuously forested areas do not include land that is predominantly under agricultural or urban land use. In this context, agricultural land use refers to tree stands in agricultural production systems, such as fruit tree plantations, 	<p>Y</p>	<ul style="list-style-type: none"> • KZR_INiG_4: Land use for biomass production – lands with high carbon stock: • 4.2 Continuously forested and weakly forested areas: • Biofuels and bioliquids shall not be made from raw material obtained from land with high carbon stock, namely land that had one of the following statuses in 1st January 2008 and no longer has that status: <ul style="list-style-type: none"> ○ continuously forested areas, namely 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 <i>in situ</i> ○ [...] ○ is forest according to respective national legal definition • This requirement shall not apply if, at the time the

	<p>oil palm plantations and agroforestry systems when crops are grown under tree cover.</p> <ul style="list-style-type: none"> • These provisions shall not apply if, at the time the raw material was obtained, the land had the same status as it had in January 2008 	<p>raw material was harvested, the land has had the same status as it had in 1st January 2008. [...]</p> <ul style="list-style-type: none"> • Continuously forested areas do not include land that is predominantly under agricultural or urban land use. In this context, land under agricultural use refers to tree stands in agricultural production systems, such as fruit tree plantations, oil palm plantations and agroforestry systems when crops are grown under tree cover. • Therefore, raw materials for biofuel or bioliquid production may be harvested from continuously forested areas and [...], under the condition that before and after 1st January 2008, the area has preserved its status of continuously forested area [...]. <u>From other naturally forested areas the raw material harvesting is prohibited.</u> • The system participants, e.g. and especially: agriculture producers, first gathering points, broker (middleman) may comply with this criterion by: <ul style="list-style-type: none"> ◦ proving that the raw materials are obtained from areas which did not have a status of continuously forested land in or after 1st January 2008 (e.g. the areas are agricultural lands); ◦ [...]. • KZR_INiG_2: Definitions: • Continuously forested area • land spanning more than one hectare with trees higher than five metres and a canopy cover of more
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			<p>than 30 %, or trees able to reach those thresholds <i>in situ</i> (definition based on article 17 (4b) of the RED)ⁱ</p> <ul style="list-style-type: none"> Footnote i: Lands intended in the first place for agricultural or urban use are not taken under consideration.
<p>3.3 Conservation of forested areas with 10-30% canopy cover</p>	<ul style="list-style-type: none"> Biofuels and bioliquids shall not be made from raw material obtained from land that was sparsely forested in January 2008 and no longer has that status Sparsely forested areas are defined as land spanning more than one hectare with trees higher than five metres and a canopy cover of between 10% and 30%, or trees able to reach those thresholds <i>in situ</i>, unless evidence is provided that the carbon stock of the area before and after conversion is such that, when the methodology laid down in part C of Annex V is applied, the greenhouse gas threshold (principle 1 above) would still be fulfilled These provisions shall not apply if, at the time the raw material was obtained, the land had the same status as it had in January 2008 	<p>Y</p>	<ul style="list-style-type: none"> KZR_INiG_4: Land use for biomass production – lands with high carbon stock: 4.2 Continuously forested and weakly forested areas: Biofuels and bioliquids shall not be made from raw material obtained from land with high carbon stock, namely land that had one of the following statuses in 1st January 2008 and no longer has that status: <ul style="list-style-type: none"> [...] land spanning more than one hectare with trees higher than five metres and a canopy cover of between 10-30% or trees able to reach those thresholds <i>in situ</i>, unless evidence is provided that the carbon stock of the area before and after conversion is of such that, when the methodology laid down in part C of Annex A is applied, the greenhouse gas threshold would still be fulfilled is forest according to respective national legal definition Therefore, raw material for biofuel or bioliquid productions may be harvested from [...] and weakly forested areas, under the condition that before and

		<p>after 1st January 2008, the area has preserved its status of [...] or weakly forested area. In case of weakly forested areas, it is necessary to ensure fulfillment of requirements on GHG emission, according to rules of the <i>System KZR INiG/8/ Guidelines for determination of lifecycle per unit values of GHG emissions for biofuels and bioliquids</i>. If in 1st January 2008, this terrain has been characterized by the same status in the moment of raw material harvest, the raw materials obtained from this land fulfill the sustainability criteria. It pertains also to continuously forested areas, as well as wetlands. From <u>other naturally forested areas the raw material harvesting is prohibited.</u></p> <ul style="list-style-type: none"> • The system participants, e.g. and especially: agriculture producers, first gathering points, broker (middleman) may comply with this criterion by: <ul style="list-style-type: none"> ○ [...]; ○ in the case when the raw materials are obtained from weakly forested areas, the participants shall provide evidence of GHG emission, including any changes since 1st January in the carbon stock of the area concerned. • KZR_INiG_2: Definitions: • Weakly forested area land spanning are more than one hectare with trees higher than five metres and a canopy cover of
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			<p>between 10% and 30%, or trees able to reach those thresholds in situ, unless evidence is provided that the carbon stock of the area before and after conversion is of such that, when the methodology laid down in part C of Annex V is applied, the conditions laid down in paragraph 2 of this Article, pertaining to limitation of greenhouse gases emission would be fulfilled, definition based on article 17 (4c) of the RED).</p>
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Article 17(5): Conservation of peatlands	Biofuels and bioliquids shall not be made from raw material obtained from peatland	
Requirement	Guidance	Assessment
4.1 Conservation of peatlands	<ul style="list-style-type: none"> • Biofuels and bioliquids shall not be made from raw material obtained from land that was peatland in January 2008, • An exception is possible if evidence is provided that the cultivation and harvesting of that raw material does not involve drainage of previously undrained soil. • For peatland that was partially drained in January 2008 a subsequent deeper drainage, affecting soil that was not 	<p>Y</p> <ul style="list-style-type: none"> • KZR_INiG_4: Land use for biomass production – lands with high carbon stock: • 4.3 Peatlands: • According to KZR INiG System, it is prohibited to use raw materials for biofuels or bioliquids production, obtained from land that was peatlands in 1st January 2008, unless: <ul style="list-style-type: none"> ◦ the soil was completely drained in 1st January 2008, or ◦ there has not been draining of the soil since 1st January 2008. • This means that for peatland that was partially

	<p>fully drained, would constitute a breach of the criterion.</p>	<p>drained in January 2008 a subsequent deeper drainage, affecting soil that was not already fully drained, would constitute a breach of the criterion ^{iv}.</p> <p>KZR_INiG_2: Definitions:</p> <ul style="list-style-type: none"> • Peatlands • area of peat presence³. According to Communication from the Commission on the practical implementation of the EU biofuels and bioliquids sustainability scheme and on counting rules for biofuels ^{iv}, peat itself is not considered as biomass, because it does not fall within the scope of the definition of biomass which means biodegradable fraction of products, wastes 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 (according to article 2 of the RED).
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³ Depending on the type of peat, low, high, and meadow peatlands are distinguished.

<p>Article 17(1): Exemption for wastes and residues</p>	<p>Biofuels and bioliquids produced from wastes and residues, other than agricultural, aquaculture, fisheries and forestry residues, need only fulfil the sustainability criteria set out in [Article 17(2)]</p>	
<p>Approach to wastes and residues (OPTIONAL – only assessed if scheme includes exemption for wastes and residues)</p>	<ul style="list-style-type: none"> • The EC is able to recognise voluntary schemes as containing accurate data for the purposes of Article 17(2) and to demonstrate that biofuels comply with the sustainability criteria in Articles 17(3)-(5) (see Article 18(4), 2nd subparagraph). Thereby, in the context of a voluntary scheme, the EC can recognise rules related to wastes and residues for the purposes of: • Whether or not biofuels from a certain feedstock have to demonstrate compliance with the land-use criteria (Article 17(1): “biofuels and bioliquids produced from waste and residues, other than agricultural, aquaculture, fisheries and forestry residues, need only [comply with the GHG threshold]”). • Whether or not certain feedstocks can be considered to have zero GHG emissions to the point of collection 	<p style="text-align: center;">Y</p> <ul style="list-style-type: none"> • KZR_INiG_1: Description of INiG System of Sustainability Criteria – general rules • 4. Double counting (of biofuels towards Member States’ national targets) is the decision of the Member States and not the KZR INiG system. The responsibility of the KZR INiG system is to ensure that information on the feedstock is passed down the chain. • 5. The criteria of the KZR INiG System:6. Biofuels and bioliquids produced from waste and processing residues, need only fulfill the sustainability criteria set out in point 1 of paragraph 5 (above) i.e. are excluded from demonstrating compliance with the land use criteria. Agricultural, aquaculture, fisheries and forestry residues are required to comply with the land use criteria. • KZR_INiG_8: Guidelines for determination of lifecycle per unit value of GHG emissions for biofuels [...]: • Waste and residues: Waste from processing, an

	<p>(Annex V, Part C, 18: “Wastes, agricultural crop residues, including straw, bagasse, husks, cobs and nut shells, and residues from processing, including crude glycerine (glycerine that is not refined), shall be considered to have zero life-cycle greenhouse gas emissions up to the process of collection of those materials.”)</p> <p>The EC is not able to recognise wastes and residues for the purposes of double counting towards Member State renewable transport targets (Article 21(2)).</p>		<p>agricultural crop residue, including straw, cobs and nutshells, and residue formed in other processing operations, including raw (non-refined) glycerol, are considered materials not emitting any GHG in their whole lifecycle, up to the process of collection of those materials.</p> <ul style="list-style-type: none"> Emissions are not allocated to crop residues or to waste from processing – they are considered non-emissive.
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Chain of Custody

Article 18(1): Use of a mass balance system	Economic operators shall use a mass balance system	
Requirement	Guidance	Assessment
<p>5.1 Economic operators shall use a mass balance system</p>	<ul style="list-style-type: none"> • The mass balance system: <ul style="list-style-type: none"> a) allows consignments of raw material or biofuel with differing sustainability characteristics to be mixed; b) requires information about the sustainability characteristics and sizes of the consignments referred to in point (a) to remain assigned to the mixture; and (c) provides for the sum of all consignments withdrawn from the mixture to be described as having the same sustainability characteristics, in the same quantities, as the sum of all consignments added to the mixture. 	<p style="text-align: center; color: blue; font-weight: bold;">Y</p> <ul style="list-style-type: none"> • KZR_INiG_7: Guidance for proper functioning of mass balance system: <ul style="list-style-type: none"> 1. Introduction: <ul style="list-style-type: none"> • Mass balance system is a set of statements and data ensuring supervision over quantities of biomass flowing through the chain of supply and production, from an agricultural producer to the final biofuels or bioliquids producer. The mass balance always has to start from the origin of the feedstock.(e.g. for Used Cooking Oil the first collector must be included in the scheme and must be able to provide evidence of the restaurants they collected from). • This document applies to all economic operators participating (i.e. system participants) in the KZR INiG System and at any sites where biomass, biofuel and bioliquids products are legally and physically controlled by system participants. The compliance with all requirements of this mass balance system is demonstrated by system participants during audit carried out by independent certification bodies. The system participants in mass balance system are the; <ul style="list-style-type: none"> ○ agricultural producers; first gathering

			<p>points, middlemen, traders, brokers; intermediate producers (biomass processors); biofuel, bioliquid manufacturers; fuel producers, final suppliers; others that are: and any other economic operators involved in processing, conversion, transformation, manufacturing, trading, storage, first waste collection points, distribution of waste, residues and biomass, biofuel and bioliquid products and/or otherwise the way of handling.</p> <ul style="list-style-type: none"> • In order to ensure proper supervision over these streams, Directive 2009/28/EC (RED) introduces an obligation of development and application of a mass balance system in the enterprise. It results directly from article 18 of the RED. According to directive, Member States require that system participants apply mass balance system which will be a basis for a demonstration of compliance with sustainability criteria. Mass balance system: <ul style="list-style-type: none"> • a) allows consignments of raw material or biofuel with differing sustainability characteristics to be mixed; • b) requires information about the sustainability characteristics and sizes of the consignments referred to in point (a) to remain assigned to the mixture; and
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		<ul style="list-style-type: none">• c) provides for the sum of all consignments withdrawn from the mixture to be described as having the same sustainability characteristics, in the same quantities, as the sum of all consignments added to the mixture.• 4. Guidelines on the construction of a mass balance system in a unit:<ul style="list-style-type: none">• (p5) According to rules of KZR INiG System, economic operators must enforce a mass balance system, complying with requirements of KZR INiG System.• (p6) Mass balance system means record keeping where "sustainability characteristics" remain ascribed to a given batch, lot or consignment of the raw material. It means that each economic operator, which processes, converts, transforms, manufactures, trades, stores, distributes and/or otherwise handles the biomass, ensures traceability of every batch, lot or consignment of product that goes through processing unit.• (p6) Sustainability characteristic of given batch is describe by input/output data (see point 5).• Traceability shall be ensured at every stage of the chain of custody.• The mass balance system shall give consideration to data on GHG of all compliant batches, lots or consignments in a given accounting period, excluding GHG emissions that are ascribed to parts
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			<p>that do not comply with the sustainability requirements. Only compliant batches, lots or consignment shall be accounted for in the GHG balance. According to the KZR INiG system it is not permitted for GHG emissions to be averaged across different batches.</p> <ul style="list-style-type: none">• In the case of blending of batches, lots or consignments with identical sustainability characteristics, its total mass is taken into consideration in the calculations of GHG emission. This means that in the purpose of GHG emission calculation, batches from different supply but with the same sustainability characteristic can be summed. Note that it is permitted if all sustainability characteristics are identical. According to KZR INiG scheme, it is also permitted to allocate the worst GHG value to all batches that have otherwise the same sustainability characteristics.• (p7) When input batches, lots or consignments with various sustainability characteristics are blended together (processed together), the separate sizes and sustainability characteristics of each batch remain assigned to the mixture. This data shall be documented in the mass balance system records. If the mixture is split up, the quantity of the compliant batch taken out of this mixture shall not be greater than quantity of input compliant batch introduced into the mixture (taking into account an efficiency
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			coefficient or a conversion coefficient).
5.2 Prevention of double counting/claiming	<ul style="list-style-type: none"> • [No specific text in Directive / Communication] • An information system needs to be included which is able to keep track of the flow of information through the supply chain. 	Y	<ul style="list-style-type: none"> • KZR_INiG_7: Guidance for proper functioning of mass balance system: • 4. Guidelines on the construction of a mass balance system in a unit: • (p5) In order to minimize administrative burden for the economic operator (system participant), it is suggested to expand operational system already existing in the company, e.g. a financial-bookkeeping system, storage system, etc., supplementing it with elements revolving around sustainability. • (p7) Ensuring traceability of the individual biomass batches, lots or consignments does not need to consist in physical supervision over the individual shipments, but it must take place at the stage of purchase and sale of batches meeting sustainability criteria (defined entry and exit points of streams from the system), and entries and exits to/from the individual processes, particularly the ones in which a change in mass or conversion to another product occurs. So each system's participant (economic

			<p>operator) carries out a mass balance based on invoices (reception documents), records of quantity of the product complying with sustainability criteria, bought and sold by this economic operator.</p> <ul style="list-style-type: none"> • 5. Documenting the verified data: • In order to ensure traceability of the product batches meeting the sustainability criteria, the economic operator shall provide to the next operating operator information about input and output data that he is obliged to report, demonstrate during audit, exchange and collect within mass balance system, as follows: • Input minimum data <ul style="list-style-type: none"> ○ data identifying the economic operator [...] ○ did "a recognised voluntary scheme" certify the supplier (Yes/No) and in case 'yes', the name of this voluntary scheme ○ data confirming sustainability of the biomass/processed biomass (include number and date of the certificate and name of recognized certification scheme, related contract number) ○ type of raw material/feedstock [...] ○ country of origin of the biomass and NUTS2 region, if applicable, origin from waste and residue ○ degraded land bonus (Y/N)
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			<ul style="list-style-type: none"> ○ cumulative GHG emission (saving) data [...] in gCO₂/MJ or gCO₂/t [...]. ○ annualised emissions from carbon stock changes [...] ○ delivery date and unique identification number, transport distances ○ statement by the economic operator that delivered raw material/feedstock (other than waste and residue) is compliant with the land-use requirements [...] ○ name, function and signature of authorized person confirming data • Output minimum data <ul style="list-style-type: none"> ○ [As above – except] ○ data identifying the seller [...] ○ information that the KZR INiG Scheme certified the operator, certificate number and the name of certification body), ○ type of delivered biomass (processed biomass, if applicable type of wastes and residues) ○ [Note there is no reference to other EC recognised voluntary schemes.]
<p>5.3 The mass balance system shall operate at least at the level of a site</p>	<ul style="list-style-type: none"> • The mass balance system shall operate at a level where consignments could normally be in contact, such as in a 	Y	<ul style="list-style-type: none"> • KZR_INiG_7: Guidance for proper functioning of mass balance system: • 4. Guidelines on the construction of a mass balance

	<p>container, processing or logistical facility or site (defined as a geographical location with precise boundaries within which products can be mixed).</p>		<p>system in a unit:</p> <ul style="list-style-type: none"> The mass balance system shall operate at least at the level of a site. Site is defined as a geographical location with precise boundaries within which products can be mixed. The mass balance system shall operate at a level where consignments could normally be in contact, such as in a container, processing or logistical facility or site. The first step is to define the system boundaries and to designate points of raw material/feedstock entry (biomass, waste or residue) and final product exit. According to KZR INiG System the moment of receipt biomass (processed biomass) is the entry point (exit point) of a stream to the mass balance system of a given economic operator. <p>KZR_INiG_2: Definitions:</p> <ul style="list-style-type: none"> Site: geographical location with precise boundaries within which products can be mixed.
<p>5.4 The mass balance shall specify the timeframe over which the system operates</p>	<ul style="list-style-type: none"> If the balance in the system is continuous in time, a "deficit", i.e. that at any point in time more sustainable material has been withdrawn than has been added, is required not to occur. Alternatively the balance could be achieved over an appropriate period of time and regularly verified. In both cases it is necessary for 	<p>Y</p>	<ul style="list-style-type: none"> KZR_INiG_7: Guidance for proper functioning of mass balance system: 4. Guidelines on the construction of a mass balance system in a unit: The balance may be calculated in a defined time period and verified regularly. A 3 months period is the maximum allowed time in KZR INiG System. In individual case, each producer should plan mass balance method and adjust to his operation profile,

	appropriate arrangements to be in place to ensure that the balance is respected.		in a way ensuring its observation and an easy method of verification.
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Recognition of other voluntary schemes

Recognition of other voluntary schemes		
Requirement	Guidance	Assessment
<p>5.5 Approach to recognition (OPTIONAL: Voluntary schemes are encouraged to include a clause on recognising the potential use of other voluntary schemes for part of a supply chain)</p>	<ul style="list-style-type: none"> In case part of the chain relies on other voluntary schemes, schemes may only recognise voluntary schemes that are recognised by the EC in the context of the Directive 2009/28/EC. Schemes may only recognise the scope of the voluntary scheme that the EC recognises in this context. 	<p style="text-align: center;">Y</p> <ul style="list-style-type: none"> KZR_INiG_1: Certification system of sustainable biofuels and bioliquids production: <ul style="list-style-type: none"> 1. Introduction: <ul style="list-style-type: none"> The KZR INiG System recognizes the same version and scope of the voluntary schemes, that are recognised by the EC in the context of the Directive 2009/28/EC. KZR INiG System recognises the scope of the voluntary scheme that the EC recognises in this context. KZR_INiG_7: Guidance for proper functioning of mass balance system: <ul style="list-style-type: none"> 5. Documenting the verified data: <ul style="list-style-type: none"> Input minimum data <ul style="list-style-type: none"> [...] did "a recognised voluntary scheme" certify the supplier (Yes/No) and in case 'yes', the name of this voluntary scheme data confirming sustainability of the biomass/processed biomass (include number and date of the certificate and name of recognized certification scheme, related contract number) [...]

Audit Quality

Assessment of the audit processes of a voluntary scheme is relevant for auditing of the sustainability criteria and auditing of the chain of custody. The level of complexity of a chain of custody is a function of the features that a scheme allows.

RED Article 18(3):

Member States shall take measures to ensure that economic operators submit reliable information and make available to the Member State, on request, the data that were used to develop the information. Member States shall require economic operators to arrange for an adequate standard of independent auditing of the information submitted, and to provide evidence that this has been done. The auditing shall verify that the systems used by economic operators are accurate, reliable and protected against fraud. It shall evaluate the frequency and methodology of sampling and the robustness of the data.

Article 18.3: Adequate standard of independent auditing	Voluntary Schemes need to ensure a sufficient quality of auditing and verification	
Requirements	Guidance	Assessment
6.1. Documentation management	<ul style="list-style-type: none"> • The system ensures that economic operators must have a documentation management system • It should be a condition of participation in voluntary schemes that economic operators: <ul style="list-style-type: none"> i) have an auditable system for the evidence related to the claims they make or rely on; ii) keep any evidence for a minimum of 	<div style="background-color: #00FF00; text-align: center; font-weight: bold; font-size: 2em; color: white; width: 20px; height: 20px; display: inline-block; vertical-align: middle;">Y</div> <ul style="list-style-type: none"> • KZR_INiG_1: Description of INiG System of Sustainability Criteria – general rules: • 7. Participants of KZR INiG System: "The economic operators are obliged to: <ul style="list-style-type: none"> -submit credible information verified by an independent audit, - have a documentation management system, - have a quality system, - keep all evidence for a minimum of 5 years, - accept responsibility for preparing any

	<p>5 years; and iii) accept responsibility for preparing any information related to the auditing of such evidence.</p> <ul style="list-style-type: none"> The auditable system should normally be a quality system drawing on points 2 and 5.2 of Module D1 ('Quality assurance of the production process') of Annex II of the Decision on a common framework for the marketing of products. 	<p>information related to the auditing of such evidence.</p> <ul style="list-style-type: none"> KZR_INiG_9: Requirements for Certification Bodies: 5.9. Retention period of data: Certification bodies are obliged to keep the audit results (reports and other records) and copies of all certificates for at least five years. KZR_INiG_10: Guidelines for auditor and conduct of audit: Annex 2: The auditor checklists contain (among others) questions that frame the documentation management from the economic operator; for example: <ul style="list-style-type: none"> - "Is it possible to prove the origin of the raw material in a clear way based on area control or other documentation?" - "Did the system introduce a mass balance system?" - "Was the source of the data collection for calculations documented in a clear and readable way?" <p>Moreover, the auditor checklists include a list of information to be provided by the economic operator (e.g. information required to identify raw material batches), and the questions included in the auditor checklist include the follow-up of previous non-conformities, which requires the economic operator to be able to record it.</p>
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			<p>Note: all along the documentation, explicit requirements are made for having an appropriate documentation system.</p>
<p>6.2 Retrospective audits</p>	<ul style="list-style-type: none"> • The voluntary scheme shall arrange for regular, at least yearly, retrospective auditing of a sample of claims made under the scheme. It is the responsibility of the verifiers to define the size of the sample that will permit them to reach the level of confidence necessary to issue a verification statement. • For these audits requirements are that the auditor should be: <ol style="list-style-type: none"> 1. Independent of the activity being audited 2. Free from conflict of interest 3. Competent <ul style="list-style-type: none"> ○ Point 1 and 2 mean that the audit shall be carried out by an external third party (not the economic operator) ○ Point 3 mean that the auditor has the generic skills and the verification body has the general skills for performing audits; and 	<p>Y</p>	<ul style="list-style-type: none"> • KZR_INiG_1: Description of INiG System of Sustainability Criteria – general rules: • 5. The criteria of KZR INiG System: • Issuing such a certificate is preceded by an audit, during which evidence of meeting of the above criteria by the entity being subject to the certification process is assessed. • KZR_INiG_9: Requirements for Certification Bodies: • 5.6. Additional requirements: "Every System participant needs to be audited in order to receive a certificate. Next audit (re-certification) must be carried out twelve months from the date of the last audit. Audits have to be organised at least once yearly. Procedures of a control audit in the surveillance are analogous to those of the certification audit." • 5.8. Certification process of an economic operator performed by certification bodies: • In the case of a positive result of the conformity assessment, the certification body issues a certificate to the applicant, valid for one year. • 5.12. KZR Certificate:

	<ul style="list-style-type: none"> ○ The auditor has the appropriate specific skills necessary for conducting the audit related to the scheme's criteria and the aspect of the scheme that they are auditing (see 6.5). 		<ul style="list-style-type: none"> • [This section details the content of the certificate; the certificate is said to be valid for one year.]
<p>6.3 Audits before participation to the Voluntary Scheme</p>	<ul style="list-style-type: none"> • As a general rule, a voluntary scheme should ensure that economic operators are audited before allowing them to participate in the scheme. • There may be exceptions to this rule due to the particular character of certain schemes (for example, schemes that consist only of standard values for greenhouse gas calculations); in these cases, this should be clearly explained when the scheme is put forward for recognition. • For these audits requirements are that the auditor should be: <ol style="list-style-type: none"> 1. Independent of the activity being audited 2. Free from conflict of interest 3. Competent <ul style="list-style-type: none"> ○ Point 1 and 2 mean that the audit shall be carried out by an external third party (not the economic operator) 	<p>Y</p>	<ul style="list-style-type: none"> • KZR_INiG_1: Description of INiG System of Sustainability Criteria – general rules: • 7. Participants of KZR INiG System: “Economic operators are audited before allowing them to participate in the KZR INiG System.” (note: this requirement is also integrated in the KZR_INiG_9 / 5.8. Certification process of an economic operator performed by certification bodies) • KZR_INiG_9: Requirements for Certification Bodies: • 5.8. Certification process of an economic operator performed by certification bodies: • Every economic operator has to be audited before he is allowed to participate in this System and it applies to all economic operators in the KZR INiG System. • After positive result of audit, the economic operator is registered in the KZR INiG system participant list; he/she has the right to sell biomass/processed biomass/ biofuel/bioliquid under the KZR INiG system framework. • 4. After positive acceptance of the application, a date and place of the audit are determined, an audit plan is

	<ul style="list-style-type: none"> ○ Point 3 mean that the auditor has the generic skills and the verification body has the general skills for performing audits; and ○ The auditor has the appropriate specific skills necessary for conducting the audit related to the scheme's criteria and the aspect of the scheme that they are auditing (see 6.5). 		<p>prepared and delivered to the economic operator before the audit.</p>
<p>6.4 Group auditing [OPTIONAL – only relevant when group auditing is applied]</p>	<ul style="list-style-type: none"> • Group auditing - in particular for smallholder farmers, producer organisations and cooperatives - can be performed. [Note that group auditing is only permitted for the producers of raw material only, not other economic operators further down the supply chain.] • In such cases, verification for all units concerned can be performed based on a sample of units, where appropriate taking into account a relevant standard developed for this purpose. <ul style="list-style-type: none"> ○ What is the basis of the sample size? ○ What is the threshold for non-compliance and do they apply to whole group? 	<p>Y</p>	<ul style="list-style-type: none"> • KZR_INiG_1: Description of INiG System of Sustainability Criteria – general rules: • 7. Participants of KZR INiG System: • “According to the rules of the KZR INiG System, an agricultural producer is audited. If requirements described in the KZR INIG System documents (no. 4-6) are met, group audit is permitted (see KZR INiG System/9 document)” • “In the case of biofuels and bioliquids production, the agricultural producer attaches to a batch of raw materials a Self-declaration for agricultural producer (Annex 2). The scope of reported data identifies sufficiently the agricultural producer, scale and type of their production, character of the land on which raw materials have been cultivated, land use change information. The information shall be verified during an audit.” • KZR_INiG_2: Definitions

	<ul style="list-style-type: none"> ○ What are the implications/procedures of non-compliance? ○ Are downstream parties informed of the non-compliance? • Group auditing for compliance with the scheme's land related criteria is only acceptable when the areas concerned are near each other and have similar characteristics. • Group auditing for the purpose of calculating GHG savings is only acceptable when the units have similar production systems and products. 		<ul style="list-style-type: none"> • Group Audit: "audit of agriculture producer group with similar production system for compliance with the KZR INiG Sys-tem requirements. Group audit is not applied to economic operators further down the supply chain." • KZR_INiG_9: Requirements for Certification Bodies: • 5.6. Additional requirements: • Every System participant needs to be audited in order to receive a certificate. Farmers can be audited individually or as part of group. Group auditing is only possible for homogenous groups of farmers. Compliance with land criteria is permitted if the areas are near each other and have similar characteristics. Group auditing for the purpose of calculating greenhouse gas emissions indicators is only acceptable when the agriculture producers have similar production systems and products. Farmers supplying seeds to a first gathering point or farmers who are members of farming organisations and cooperatives can be considered as a group. A farmers' organization shall designate a management representative who is responsible for group management and implementation of the system requirements. A certificate is issued to the first gathering point or to the central office of the organisation. In this case the first gathering point/ the central office of organisation is obliged to: <ul style="list-style-type: none"> - keep a list of the farms, - keep contracts/invoices,
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		<ul style="list-style-type: none"> -contact certification body auditor with farmers, - keep self declaration, be responsible for managing the certification process. • Before issuing a certificate, an auditor must be sure that the verification of the individual farms was carried out and completed. In the case when a first gathering point collects raw material from many agricultural producers, the minimum scope for a random inspection is the square root of farms (x , where x is the number of farms) rounded up to the nearest whole number. Audit of the first gathering point is mandatory. • If an economic operator runs his business on more than one site (multi site economic operator) and they share a common management system, the following rules can be applied. The minimum number of sites to be audited is the square root of the number of operator sites, rounded up to the nearest whole number. The headquarters is audited once a year. The audit of the individual sites must be carried out and completed before a certificate can be issued for the audited economic operator. The selection criteria for the sites to be audited are as follow: <ul style="list-style-type: none"> - random selection; - results of internal audit - the size of the sites (it is recommended to differentiate it) <p>Major non-conformity identified at any site causes</p>
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			<p>revoking of the certificate for the whole company.</p> <ul style="list-style-type: none"> • KZR_INiG_10: Guidelines for auditor and conduct of audit: • 6. Risk evaluation: • The certification bodies recognized by the KZR INiG System are obliged to carry out a risk assessment before it will conduct the audit. In case of an audit of agricultural producers, using the risk factors of the KZR INiG System is mandatory. <p>Related footnote: Based on these factors are formulated in correspondence to the Guidance document for the evaluation of the equivalence of organic producer group certification schemes applied in developing countries, 6 November 2006.</p>
6.5 Auditor competencies	<ul style="list-style-type: none"> • For these audits requirements are that the auditor should be: <ol style="list-style-type: none"> 1. Independent of the activity being audited 2. Free from conflict of interest 3. Competent <ul style="list-style-type: none"> ○ Point 1 and 2 mean that the audit shall be carried out by an external third party (not the economic operator) ○ Point 3 mean that the auditor has the generic skills and the 	Y	<ul style="list-style-type: none"> • KZR_INiG_1: Description of INiG System of Sustainability Criteria – general rules: • 8. Transparency and independence of the KZR INiG System: "The KZR INiG System is independent and free from external pressures. The rule of transparency and independence is the primary principle of the System's operation. Monitoring of transparency and independence of operation of the System is the Council's duty. Correctness of the Council's operation is assured by the inclusion of external experts, free of any pressures and conflicts of interests. Moreover, certification bodies that are not participants

	<p>verification body has the general skills for performing audits; and</p> <ul style="list-style-type: none"> ○ The auditor has the appropriate specific skills necessary for conducting the audit related to the scheme's criteria. ○ Namely: ○ Land use criteria: Relevant experience, in agriculture, ecology or similar. ○ Chain of Custody system: Experience in mass balance systems, traceability, data handling or similar. ○ GHG: Relevant experience in GHG accounting. 	<p>of the System, and perform audits of a given participant of the System, must be free from conflict of interests. Audits are realized according to principles of confidentiality.”</p> <ul style="list-style-type: none"> • KZR_INiG_9: Requirements for Certification Bodies: • 5.1. General requirements for the certification body: Certification body must: <ul style="list-style-type: none"> - have legal personality and operate within the territory of the Republic of Poland; - have an accreditation of conformity with PN-ISO/IEC 17021 standard (issued by national accreditation body. The national accreditation body needs to be affiliated with the IAF); - carry out audits according to the requirements of PN-EN 19011 standard; - established at least a 'limited assurance level' on the audited information in line with the requirements of ISAE3000; - have access to auditors with competencies as described in the KZR INiG/10 document); - prove independence and impartiality towards the certified system participants; - prove compliance with the KZR INiG System requirements. • 5.2. Authorization of the certification body: • The body applying for authorization should provide at least: <ul style="list-style-type: none"> - a quality manual/management system manual;
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		<ul style="list-style-type: none"> - full set of procedures; - qualification criteria for auditors, employed by the body to carry out the assessments; - list of auditors and technical experts, qualified to carry out the assessments (KZR INiG System /10/ Guidelines for auditor and conduct of audit);; <ul style="list-style-type: none"> • KZR_INiG_10: Guidelines for auditor and conduct of audit: • 5.1. Requirements for an auditor: • The Manager of a certification body appoints auditors (KZR INiG System /9/ Requirements for certification bodies), who: <ul style="list-style-type: none"> (1) are external: audit cannot be conducted by a participating economic operator (excluding personnel of the certification body); (2) are independent: auditors are independent of the activity being audited and free from conflicts of interest; (3) have general qualifications: certification body has general qualifications to conduct the audit, and (4) have the appropriate specific qualifications: auditors have qualifications necessary for conducting the assessment of provided or required evidence, taking into account the system criteria. <p>Auditors are obliged to make a confidentiality declaration.</p> • 5.1.1. Foundation of professionalism: • In additional to the general requirements detailed
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			<p>above, this section gives more precise requirements, like for example "the audit team shall: (...)</p> <ul style="list-style-type: none"> - have 3-years of professional experience, including at least 2 years work in the relevant area of quality and/or environment management system; (...) - conduct audits according to the requirements of PN-EN ISO 19011 standard; - have professional experience of conducting audits and participate in at least 4 external audits for total of 20 days of audit experience - as a candidate for auditor (including preparation and development of reports); (...) - have knowledge of the KZR INiG System requirements (KZR INiG System /1/ Description of INiG System of Sustainability Criteria – general rules)and other KZR INiG System documents knowledge of handling and analysis of data required by KZR INiG System. - have the appropriate specific skills to assess land use criteria, mass balance system, calculation of GHG emission (e.g. relevant experience, in agriculture, ecology, mass balance systems, traceability, data handling, knowledge of ISO14040i, ISO 14064-3ii, and ISO 14065iii standards, methodology of evaluation of GHG emission in lifecycle of products including the RED methodology) <p>Detailed requirements for technical experts are also explained, including biological and ecological knowledge, for example when auditing agricultural</p>
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			<p>economic operator.</p> <ul style="list-style-type: none"> Independence requirements for auditors and certification bodies are also detailed in KZR_INiG _10: 5.1.3. Independence and in KZR_INiG_9: 5.5. Independence of certification bodies.
<p>6.6 Management of the audit</p>	<ul style="list-style-type: none"> Audits shall be properly planned, conducted and reported on The sustainability system has clear procedures that describe how audits should be conducted Audit includes the following: <ul style="list-style-type: none"> Draw up a verification plan which corresponds to the risk analysis and the scope and complexity of the economic operator's activities, and which defines the sampling methods to be used with respect to that operator's activities; Carry out the verification plan by gathering evidence in accordance with the defined sampling methods, plus all relevant additional evidence, upon which the verifier's verification conclusion will be based; Request the operator to provide any missing elements of audit 	<p>Y</p>	<ul style="list-style-type: none"> KZR_INiG_9: Requirements for Certification Bodies: 5.1. General requirements for a certification body: Certification body must (...) carry out audits according to the requirements of PN-EN 19011 standard; established at least a 'limited assurance level' on the audited information in line with the requirements of ISAE3000;; 5.4. Tasks of an authorized certification body: The tasks of an authorized certification body include: <ul style="list-style-type: none"> - carrying out the assessment of conformity with the KZR INiG System, based on the KZR INiG Systems' documents; - issuing certificates within the process of certification of biomass, biocomponents, biofuels, and bioliquids; (...)" 5.7. Determination of audit duration: Audit duration depends on the scope of certification and size of the participating economic operator being subject to the audit. The certification body determines the audit taking those factors into account. 5.8. Certification process of an economic operator performed by certification bodies:

	<p>trails, explain variations, or revise claims or calculations, before reaching a final verification conclusion.</p> <ul style="list-style-type: none"> • ISO 19011: 2002 (plan, do, act, check), or justified equivalent, covers the above requirements. 		<p>Preparation and conducting of the audit</p> <p>During the audit, the auditor uses the checklist of the KZR INiG System. The approval of an audit plan, determination of the audit date and appointment of a lead auditor and auditor team detailed requirements are published in document KZR INiG System/10/ Guidelines for auditor and conduct of audit.</p> <p>This section also includes the content of the audit report and how to draw a conclusion for certification.</p> <ul style="list-style-type: none"> • 5.11. KZR Certificate: This section details the content of the certificate; the certificate is said to be valid for one year. • KZR_INiG_10: Guidelines for auditor and conduct of audit: • 5.2. Description of the conformity assessment process: This section details the conformity assessment process through a diagram containing 7 steps: <ul style="list-style-type: none"> - initiation of the audit (with in particular the definition of goals, scope and criteria of the audit, and the assignation of the appropriate team) - review of documents - preparation of audit operations conducted on-site, (with in particular the preparation of the audit plan) - conduct of audit operations on-site (with in particular the verification of KZR INiG system checklists) - preparation, approvals and distribution of the audit report
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		<ul style="list-style-type: none"> - end of the audit - issuing of the certificate • Minor non-conformities: Minor conformities are non-conformities, which causes are detected and can be eliminated within 30 days. The certificate can be issued after approval by the lead auditor's correction and corrective action. . In this case it is recommended to carry out a surveillance audit at latest/least six months after finalization of the certification audit. • Major non-conformities: Major nonconformities are non-conformities, which causes are not detected or cannot be eliminated within 30 days. The issuing of a certificate is rejected. • 5.3 Credibility and reliability of data: • The range of verified data varies depending on the scope of the audit. References to the other KZR_INiG documents are made to identify data which should be audited • 6. Risk evaluation: "The certification bodies recognized by the KZR INiG System are obliged to carry out a risk assessment before it will conduct the audit. In the case of an audit of agricultural producers, using the risk factors of the KZR INiG System is mandatory." This section details the sample to be built, and how it has to be adapted to the results of the risk analysis. • Annex 2: • This section is the checklist to be used by auditors during the audit. It describes the criteria to be verified, the required documents, the source of data,
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			and a free space for auditor comments.
6.7 Establishment of at least a "limited assurance level"	<ul style="list-style-type: none"> A "limited assurance level"⁴ implies a reduction in risk to an acceptable level as the basis for a negative form of expression by the auditor such as "based on our assessment nothing has come to our attention to cause us to believe that there are errors in the evidence" 	Y	<ul style="list-style-type: none"> KZR_INiG_9: Requirements for Certification Bodies: 5.1. General requirements for the certification body: "Certification body must (...)established at least a 'limited assurance level' on the audited information in line with the requirements of ISAE3000;"
6.8 Accreditation	<ul style="list-style-type: none"> Accreditation by a national accreditation body affiliated to the International Accreditation Forum (IAF); or Accreditation as a 'full' member or 'associate' member of ISEAL; or 'Commitment to comply' with ISO 17011: 2004 (General requirements for accreditation bodies accrediting conformity assessment bodies), or justified equivalent, within 3 years (consistent with ISEAL associate member) 	Y	<ul style="list-style-type: none"> KZR_INiG_9: Requirements for Certification Bodies: 5.1. General requirements for the certification body: Certification body must: [...] have an accreditation of conformity with PN-ISO/IEC 17021 standard(issued by national accreditation body . The national accreditation body needs to be affiliated with the IAF)

⁴ A stronger "assurance level" is the "Reasonable assurance level". Reasonable assurance implies a reduction in risk to an acceptably low level as the basis for a positive form of expression such as "based on our assessment, the evidence is free from material misstatement".