

# Assessment of Neste Oil's HVO Renewable Diesel voluntary scheme

**Version as submitted 14 August 2013**

## Summary

An assessment has been made on compliance of the *HVO Renewable Diesel Scheme for Verification of Compliance with the RED sustainability criteria for biofuels*, developed by Neste Oil (hereafter referred to as the "Neste scheme"), as submitted to the European Commission for recognition with the sustainability criteria of Directive 2009/28/EC.

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

Scheme scope (see Scheme-Main, p3):

- Biofuel: Hydrotreated Vegetable Oil (HVO). To be used by any economic operator.
- Feedstocks: All feedstocks suitable for HVO-type biodiesel (including detailed information for crude palm oil, rapeseed oil, soybean oil and waste and residues).
- Fuel chain scope: the scheme covers "any economic operator in the value chain aimed at producing HVO-type (hydrotreated vegetable oil) renewable diesel", from raw material production, through biofuel production to product (biofuel) logistics.
- All geographic locations.

## Background

Neste Oil is a refiner and marketer of low emission transport fuels. Neste has developed a voluntary scheme to be used within the Neste Oil group as well as by any economic operator marketing HVO.

Neste is seeking formal assessment and recognition by the European Commission for the 'HVO Renewable Diesel Scheme for Verification of Compliance with the RED sustainability criteria for biofuels' as a 'voluntary scheme' which can be used to demonstrate to Member States that the sustainability criteria relating to greenhouse gas savings (Article 17(2)), land with high biodiversity value (Article 17(3)), and land with high carbon stock (Article 17(4-5)) are complied with. Neste has also submitted documentation on chain of custody and audit quality for recognition.

## Assessment results

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

Table 1: Assessment results - summary

RED Article	Neste scheme	Comments
	Version as submitted 14 August 2012	
Sustainability criteria		
17(2): Greenhouse gas emissions savings	Y	1.2 Recommendation to further align the emission coefficients with the BioGrace standards values.
17(3): Conservation of biodiversity	Y	
17(4): Conservation of carbon stocks	Y	
17(5): Conservation of peatlands	Y	
Approach to 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	

**Scheme documents assessed:**

Document name and version	Referenced as
Neste Oil scheme for verification of compliance with the sustainability criteria for biofuels	Scheme-Main
Traceability	App2-Traceability
Mass Balance Method	App3-MB
Greenhouse gas data handling	App4-GHG

## 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"> <li>In the case of biofuels and bioliquids produced by any installation<sup>1</sup> 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.</li> <li>Greenhouse gas emissions from any land-use change that has occurred since 1 January 2008 shall be taken</li> </ul>	<div>Y</div> <ul style="list-style-type: none"> <li>Scheme-Main p4 (2.1): "All raw materials and production and logistics the economic operator uses for the production of its renewable fuels have to comply with the criteria set in the RED."</li> <li>Scheme-Main p5 (2.2, 1): "The greenhouse gas emission saving from the use of biofuels and bioliquids shall be at least 35%. Greenhouse gas emissions from any land-use change that has occurred since 1 January 2008 shall be taken into account in the greenhouse gas</li> </ul>

<sup>1</sup> 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>into account in the greenhouse gas calculation, according to the methodology in the RED Annex V.</p>	<ul style="list-style-type: none"> <li>• calculation, according to the methodology in the RED Annex V.”</li> <li>• Scheme-Main p5 (2.2, 1.2): “In the case of biofuels and bioliquids produced by an installation (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) that was in operation on 23 January 2008, the 35% greenhouse gas saving threshold needs to apply from 1 April 2013. This change (grandfathering clause) to the general rule shall not be applied to biofuels produced after 1 April 2013.”</li> <li>• Scheme-Main p5 (2.2, 1.3): “As of 1 January 2017, the greenhouse gas saving from the use of Biofuels and bioliquids shall be at least 50%.”</li> <li>• Scheme-Main p5 (2.2, 1.4): “As of 1 January 2018 that greenhouse gas emission saving shall be at least 60% for biofuels and bioliquids produced in installations in which production started on or after 1 January 2017.”</li> <li>• Scheme-Main, p21: “All the raw materials, processes and the entire supply chain the economic operator uses for biofuel production shall meet the RED sustainability criteria, including the GHG saving requirements. All of the relevant criteria listed in the</li> </ul>
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			<p>chapter 2 of this voluntary scheme have to be complied with. Only supply chains meet the 35% greenhouse gas saving target are taken into account as Biofuels or bioliquids.”</p> <ul style="list-style-type: none"> <li>• App4-GHG p11 (7.1.3): “Land use change happening after the cut-off date of 1 January 2008 is taken into account. [...]If no land-use change took place after the cut-off date, the land-use change emissions equal zero. Only in this case the overall default values or default values for cultivation can be applied.”</li> <li>• App3-MB p3-4 (7.1): “The mass balance method shall balance the GHG emission data for all RED compliant consignments at the end of inventory period and exclude from this GHG balance all non-RED compliant consignments. [...] Non-RED compliant consignments may not be used in calculating aggregated GHG emission saving data. [...]”</li> <li>• App3-GHG p9 (Annex A3): [...] Thus, if the characteristics include <b>different figures on greenhouse gas emissions</b> they remain separate; these figures <b>cannot be averaged for the purpose of showing compliance with the sustainability requirements</b>. The communications does explicitly prohibit the averaging of different greenhouse gas values (carbon intensity figures) <b>for the purpose of</b></li> </ul>
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			<p><b>reaching the required greenhouse gas saving target</b>, i.e. 35%, later 50% or 60% saving. Thus, mixing e.g. 30% and 70% consignments in order to meet the 35% target is not allowed."</p>
<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><b>Y</b></p> <ul style="list-style-type: none"> <li>• App4-GHG, p3 (5): "ISCC 205 GHG Emissions Calculation methodology and GHG Audit, 15.3.2011 V 2.3. The calculation methodology described in this instruction follows the guidelines of both RED and ISCC 205. Both of the documents have been used as templates when forming this instruction."</li> <li>• App4-GHG, p3 (7.1): "The GHG calculation methodology described in this instruction can be applied for hydrotreated biofuels and all sustainable feedstocks."</li> <li>• App4-GHG, p3-4 (7.1): "According to the RED, ISCC and this instruction there are three options for providing GHG information": <ul style="list-style-type: none"> <li>◦ Use of default values:</li> <li>◦ Use of calculated actual values:</li> <li>◦ Combination of default and actual values:</li> </ul> </li> <li>• App4-GHG p4 (7.1): "The default values are subjected to changes by the Commission. Such updates will become valid within this voluntary scheme with</li> </ul>	

			<p>immediate effect.”</p> <ul style="list-style-type: none"> <li>• App4-GHG, p4 (7.1): “Combining default and actual values in the supply chain is possible between modules.”</li> <li>• App4-GHG, p4 (7.1): “[...] the default cultivation emissions can only be applied for material cultivated outside the European Union, or restricted areas as defined in the RED Article 19(2), (3).”</li> <li>• App4-GHG, p4 (7.1.1): “The calculation of actual values for the different modules of supply chains can rely partly on external sources. The following data sources are preferred above others: <ul style="list-style-type: none"> <li>◦ Official data from government offices or bodies e.g. statistical data</li> <li>◦ If not available, statistical data published by independent bodies may be used</li> <li>◦ Scientific literature or studies which are peer-reviewed and data lies within the commonly accepted data range when available.</li> <li>◦ Individual emission factors for different inputs and outputs e.g. fertilizers, fuels and electricity should be based first and foremost on: <ul style="list-style-type: none"> <li>▪ Ecoinvent database</li> </ul> </li> </ul> </li> </ul>
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			<ul style="list-style-type: none"> <li>▪ BioGrace Standard Values</li> <li>▪ the "ISCC list of emission factors"</li> <li>▪ when no other reliable data is available, verified information provided by supplier may be used</li> </ul> <ul style="list-style-type: none"> <li>• App4-GHG, p4-5 (7.1.1): "Calculations are to be based on periods of 12 months, preferably the previous calendar year."</li> <li>• App4-GHG, p5 (7.1.1): "When calculating actual values all relevant emission sources throughout the production process shall be considered. Inputs and outputs with little or no effect on total emissions can be neglected. These are emission sources which have an impact of less than 0.5% on the overall emissions of the respective module."</li> <li>• App4-GHG p5 (7.1.1.1): "GHG emissions from the cultivation of raw material include emissions from the cultivation process itself; from harvesting of raw materials; and from production of chemicals or other products used during the cultivation."</li> <li>• App4-GHG, p6 (7.1.1.1): "For cultivation module the methodology allows for – as an alternative to actual values – the use of averages for smaller geographical</li> </ul>
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			<p>areas than those used in the calculation of the default values in the RED. [Explanation of NUTS2 regions.] Cultivation default values for feedstocks grown in the EU can only be used if crops have been grown on the above mentions areas.”</p> <ul style="list-style-type: none"> <li>• App4-GHG, p6 (7.1.1.1): “If co-products are produced in the cultivation module, the allocation of emissions to the main product and co-products takes place in cultivation module.”</li> <li>• App4-GHG, p6 (7.1.1.1): “GHG emissions related to residue or waste feedstocks are considered to be zero up to the point of their collection. Waste and residue definition can be found from the scheme’s main document in section 2.2., point 9.”</li> <li>• App4-GHG, p8 (7.1.1.2): “Feedstock emissions related to agricultural residues such as straw, bagasse, husks, cobs and nut shells as well as processing residues including e.g. crude glycerine are considered to be zero up to the point of their collection.”</li> <li>• App4-GHG, p9 (7.1.1.3): “GHG emissions shall include all transportation steps related to the supply chain. Transportation emissions accounted for in the cultivation step do not have to be considered here.”</li> <li>• App4-GHG, p9 (7.1.1.3): “Emissions related to fuel depots and filling stations can be calculated by using</li> </ul>
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			<p>BioGrace assumptions for electricity consumption (Table D.3) and region specific emission factors for electricity production. Primary source for the BioGrace values is the Joint Research Centre, JRC (2008) [full reference provide]."</p> <ul style="list-style-type: none"> <li>• App4-GHG, p10 (7.1.1.4): "[...] The allocation is done in proportion to the lower heating values of the products. Lower heating value or net calorific value takes into account the moisture content of the products. Heating values for only the dry fractions of products are not approved."</li> <li>• App4-GHG, p10 (7.1.1.4): "Allocation of emissions to residues or wastes is strictly prohibited. If these streams were to be used in any other supply chains they would be considered to have zero emissions up till the point of collection. The material streams which the owner wants or is obligated to get rid of are considered as waste. However; raw materials that have been intentionally modified to be counted as waste (e.g. by adding waste material to a material that was not waste), shall not be considered as qualifying."</li> <li>• App4-GHG, p11 (7.1.2): "Default values for the entire supply chain or disaggregated default values for different modules of the supply chain are given in RED Annex V, Table D can be used."</li> </ul>
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		<p>one in Rotterdam.”</p> <ul style="list-style-type: none"> <li>• App4-GHG, p18 (Annex A): [Description of H2 production] Main process chemicals are also included in the calculations.</li> <li>• App4-GHG, p19 (Annex A): Figure 3 describes system boundary of NExBTL life cycle inventory.</li> <li>• App4-GHG, p20 (Annex B): LHVs of fuels are included, but are different to those used to calculate the RED defaults (see RED and BioGrace Standard values). E.g.: CPO (39.3 MJ/kg in Neste vs 37 in BioGrace), and Biogasoline (44.87 MJ/kg in Neste vs 43.1 in BioGrace/RED). The source of the LHVs of Crude Palm Oil (CPO) and Palm Kernel (PK) are the Malaysian Energy Information Bureau, Renewable Energy Resource, Anders Evald et al. Neste justifies using these LHVs, by stating that “As a major palm oil producer Malaysia has firsthand knowledge related to palm oil. Therefore, the above lower heating values are preferred.” The source for fuel data is Neste Oil ETS Reporting (third party verified).</li> <li>• App4-GHG, p20-21 (Annex B1.1): The method of calculating the allocation factor for palm oil assumes that palm kernels leave the system boundary. “This is due to the fact that palm oil kernel extraction is done at a separate production facility on a different site.”</li> </ul>
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			<p>"However, if palm kernel oil extraction is done at the same site as the milling, then emissions are to be allocated between palm kernel meal, palm kernel oil and crude palm oil."</p> <ul style="list-style-type: none"> <li>• App4-GHG, p20-21 (Annex B1.1): "The allocation is done based on the energy contents of products and co-products." [Correct formula included for calculating the allocator factor.] "The allocation factor should be calculated by using actual data from mills." [The calculated allocation factor for CPO/PK based on Schmidt, 2007b is included as a reference. This is 87.2% (CPO/PK) vs 95.2% (CPO/PKM) in the RED.]</li> <li>• App4-GHG, p22 (Annex B1.2): "Allocations in biofuel production: Currently, three different product outputs from the hydrotreatment process can be identified. In addition to renewable diesel, biofuel gas and bionaphtha are also formed. Biofuel gas and bionaphtha can be used inside the system boundaries in which case the renewable diesel or NExBTL would be the only product leaving the system boundaries. In which case all emissions are allocated to the renewable diesel. [...]"</li> <li>• App4-GHG, p22 (Annex B1.2): "The biofuel gas which is comparable to refinery gases can be utilised in combined heat and power production, replacing natural</li> </ul>
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			<p>gas as fuel. If the generated electricity exceeds the consumption of the biofuel production unit, and this electricity leaves the system boundary, as a co-product, then part of the total emissions can be allocated to the excess electricity in proportion to the energy content of the electricity and other co-products.”</p> <ul style="list-style-type: none"> <li>• App4-GHG, p22 (Annex B1.2): “The above allocation rule does not apply for CHP electricity when the CHP runs on fossil fuels, bioenergy other than a co-product of the biofuel production process or agricultural crop residues. Instead, a credit due to the surplus electricity generation can be calculated. The credit <math>e_{ee}</math>, in gCO<sub>2</sub>e/MJ, is calculated by multiplying the excess electricity produced <math>el_{ee}</math> with a BioGrace standard value for CHP electricity production: [...].”</li> <li>• App4-GHG, p22 (Annex B.1.2): “If biofuel gas and bionaphtha are sold as transportation fuels and are therefore leaving the system boundary, they will be regarded as co-products. Total emissions of the entire production chain shall be allocated to all (co-)products according to their respective energy content.”</li> <li>• App4-GHG, p22 (Annex C): “The calculation of emissions from land-use change are instructed to be done according to the following guidelines: (RED,</li> </ul>
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			<p>Annex V, C point 7).” [Correct formula included.]</p> <ul style="list-style-type: none"> <li>• App4-GHG, p22 (Annex C): <b>“Definitions for “degraded land” are not yet available from the EC. Until such a time as the definition of degraded land is finalised, the Commission is unable to recognise allocation of the 29gc02/MJ biofuel bonus for degraded land (e<sub>B</sub>). This bonus cannot be included in GHG calculations before EC can provide necessary definitions.”</b></li> <li>• App4-GHG, p22 (Annex C): “The land use change [emissions] needs to be calculated, if there has been land use change after January 1<sup>st</sup> 2008. If the raw material estate has been in operation before that date the value of change in soil carbon stock will be 0 gCO<sub>2</sub>/MJ.”</li> <li>• App4-GHG, p23 (Annex C): “Commission Decision of 10 June 2010 on guidelines for the calculation of land carbon stocks for the purpose of Annex V to Directive 2009/28/EC, (2010/335/EU), establishes the rules for the calculation of land carbon stocks, completing the rules laid down in Annex V.”</li> <li>• App4-GHG, p24-26 (Annex D): Data sources for the emission factors and other standard values used in the calculation of GHG emissions for palm oil are listed – and indicated as being subject to change. (See</li> </ul>
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			<p>requirements below.)</p> <p>Recommendation:</p> <ul style="list-style-type: none"> <li>App4-GHG, p25-28 (Annex D): We recommend that Neste further aligns the emission coefficients with the relevant BioGrace standard values. In particular, we recommend that the transport co-efficient factors (Table D3) are replaced with BioGrace values. Furthermore, for completeness it would be helpful to include any other BioGrace standard values that are not currently covered in the Neste scheme.</li> </ul>
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<b>Article 17(3): Conservation of biodiversity</b>	<b>Biofuels and bioliquids shall not be made from raw material obtained from land with high biodiversity value</b>	
Requirement	Guidance	Assessment
2.1 Conservation of primary forest and other wooded land	<ul style="list-style-type: none"> <li>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, whether or not the land continues to have that status</li> </ul>	<p><b>Y</b></p> <ul style="list-style-type: none"> <li>Scheme-Main, p6 Requirement in this voluntary scheme (2.2): Biofuels and bioliquids shall not be made from raw material obtained from land with high biodiversity value as defined in the RED and interpreted as follows:</li> <li>2.1 Conservation of primary forest and other wooded</li> </ul>

	<ul style="list-style-type: none"> <li>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.</li> </ul>		<ul style="list-style-type: none"> <li>land</li> <li>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, whether or not the land continues to have that status</li> <li>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.</li> <li>Scheme-Main, p21 (4.3): "All the raw materials Neste Oil uses shall meet the RED sustainability criteria, [...]."</li> </ul>
2.2 Conservation of protected areas	<ul style="list-style-type: none"> <li>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.</li> <li>This includes areas designated: <ul style="list-style-type: none"> <li>i) by law or by the relevant competent authority for nature protection purposes; or</li> <li>ii) for the protection of rare, threatened or endangered ecosystems or species</li> </ul> </li> </ul>	Y	<ul style="list-style-type: none"> <li>Scheme-Main, p6 Requirement in this voluntary scheme (2.2): Biofuels and bioliquids shall not be made from raw material obtained from land with high biodiversity value as defined in the RED and interpreted as follows: <ul style="list-style-type: none"> <li>2.2 Conservation of protected areas</li> <li>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.</li> <li>This includes areas designated:</li> </ul> </li> </ul>

	<p>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;</p> <ul style="list-style-type: none"> <li>• An exception is possible if evidence is provided that the production of that raw material did not interfere with those nature protection purposes.</li> </ul>		<p>i) by law or by the relevant competent authority for nature protection purposes; or</p> <p>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;</p> <ul style="list-style-type: none"> <li>• An exception is possible if evidence is provided that the production of that raw material did not interfere with those nature protection purposes.</li> <li>• Neste Oil 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.</li> <li>• Scheme-Main, p21 (4.3): "All the raw materials Neste Oil uses shall meet the RED sustainability criteria, [...]."</li> </ul>
2.3 Conservation of highly biodiverse grassland	<ul style="list-style-type: none"> <li>• Biofuels and bioliquids shall not be made from raw material obtained from land that was highly biodiverse grassland in or after January 2008, whether or not the land continues to have that status.</li> </ul>	Y	<ul style="list-style-type: none"> <li>• Scheme-Main, p6-7 Requirement in this voluntary scheme (2.2): "Biofuels and bioliquids shall not be made from raw material obtained from land with high biodiversity value as defined in the RED and interpreted as follows:</li> </ul>

	<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 status<sup>2</sup></p>	<ul style="list-style-type: none"> <li>• Criterion 2.3 "Any conversion of grasslands after January 2008 is prohibited to cultivation of feedstocks for biofuel or bioliquid production, until the European Commission has published its definition of high biodiverse grassland.</li> <li>• "The European Commission will set up the criteria and geographic ranges to determine which grassland are considered highly biodiverse grassland.</li> <li>• "Once the European Commission has published its definition of high biodiverse grassland, Neste Oil, as the owner of the scheme, will: <ul style="list-style-type: none"> <li>◦ communicate to the participants of the scheme any details of the definition as soon as they are available from the EC,</li> <li>◦ update the documentation in this voluntary scheme accordingly</li> <li>◦ apply for recognition of the amended scheme from the EC</li> <li>◦ after receiving the recognition, communicate it to participants</li> <li>◦ start using the updated version. Until the recognition, the conversion of grassland remains prohibited."</li> </ul> </li> </ul>
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<sup>2</sup> 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.

			<ul style="list-style-type: none"> <li>Neste Oil 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."</li> <li>Scheme-Main, p21 (4.3): "All the raw materials Neste Oil uses shall meet the RED sustainability criteria [...]",</li> <li>Criterion 2.3 in Scheme-Main clearly prohibits the conversion of grasslands for the cultivation of feedstocks for biofuel production after Jan 2008.</li> </ul>
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<b>Article 17(4): Conservation of carbon stocks</b>	<b>Biofuels and bioliquids shall not be made from raw material obtained from land with high carbon stock</b>	
Requirement	Guidance	Assessment
3.1 Conservation of wetlands	<ul style="list-style-type: none"> <li>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</li> <li>A wetland is land that is covered with or</li> </ul>	<p><b>Y</b></p> <ul style="list-style-type: none"> <li>Scheme-Main, p7-8 Requirement in this voluntary scheme (2.2): Biofuels and bioliquids shall not be made from raw material obtained from land with high carbon stock:</li> <li>Criterion 3.1 Conservation of wetlands</li> </ul>

	<p>saturated by water permanently or for a significant part of the year</p> <ul style="list-style-type: none"> <li>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</li> </ul>		<ul style="list-style-type: none"> <li>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.</li> <li>A wetland is land that is covered with or saturated by water permanently or for a significant part of the year.</li> <li>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.</li> <li>Scheme-Main, p21 (4.3): "All the raw materials Neste Oil uses shall meet the RED sustainability criteria, [...]."</li> </ul>
3.2 Conservation of continuously forested areas	<ul style="list-style-type: none"> <li>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</li> <li>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 in situ</li> <li>Continuously forested areas do not</li> </ul>	Y	<ul style="list-style-type: none"> <li>Scheme-Main, p8 Requirement in this voluntary scheme (3): Biofuels and bioliquids shall not be made from raw material obtained from land with high carbon stock:</li> <li>Criterion 3.2 Conservation of continuously forested areas</li> <li>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.</li> <li>Continuously forested areas are defined as land spanning more than one hectare with trees higher</li> </ul>

	<p>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, oil palm plantations and agroforestry systems when crops are grown under tree cover.</p> <ul style="list-style-type: none"> <li>• 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</li> </ul>		<p>than five metres and a canopy cover of more than 30%, or trees able to reach those thresholds in situ.</p> <ul style="list-style-type: none"> <li>• 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 plantations and agroforestry systems when crops are grown under tree cover (EC Communication 2010/C160/02).</li> <li>• 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.</li> <li>• Scheme-Main, p17 (4.3): "All the raw materials Neste Oil uses shall meet the RED sustainability criteria[...]."</li> </ul>
3.3 Conservation of forested areas with 10-30% canopy cover	<ul style="list-style-type: none"> <li>• 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</li> <li>• 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</li> </ul>	Y	<ul style="list-style-type: none"> <li>• Scheme-Main, p8 Requirement in this voluntary scheme (2.2): Biofuels and bioliquids shall not be made from raw material obtained from land with high carbon stock:</li> <li>• Criterion 3.3 Conservation of sparsely forested areas</li> <li>• 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.</li> </ul>

	<p>thresholds in situ, 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</p> <ul style="list-style-type: none"> <li>• 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</li> </ul>		<ul style="list-style-type: none"> <li>• 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 in situ, 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.</li> <li>• 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.</li> <li>• Scheme-Main, p21 (4.3): "All the raw materials Neste Oil uses shall meet the RED sustainability criteria, [...]."</li> </ul>
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<b>Article 17(5): Conservation of peatlands</b>	<b>Biofuels and bioliquids shall not be made from raw material obtained from peatland</b>	
Requirement	Guidance	Assessment
4.1 Conservation of peatlands	<ul style="list-style-type: none"> <li>Biofuels and bioliquids shall not be made from raw material obtained from land that was peatland in January 2008,</li> <li>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.</li> <li>For peatland that was partially drained in January 2008 a subsequent deeper drainage, affecting soil that was not fully drained, would constitute a breach of the criterion.</li> </ul>	<p><b>Y</b></p> <ul style="list-style-type: none"> <li>Scheme-Main, p8-9 Requirement in this voluntary scheme (4): Biofuels and bioliquids shall not be made from raw material obtained from peatland:</li> <li>Criterion 4.1 Conservation of peatlands</li> <li>Biofuels and bioliquids shall not be made from raw material obtained from land that was peatland in January 2008, unless evidence is provided that the cultivation and harvesting of that raw material does not involve drainage of previously undrained soil.</li> <li>This means that for peatland that was partially drained in January 2008 a subsequent deeper drainage, affecting soil that was not already fully drained, would constitute a breach of the criterion. (EC Communication 2010/C 160/02, section 4.2.3.)</li> <li>Scheme-Main, p17 (4.3): "All the raw materials Neste Oil uses shall meet the RED sustainability criteria [...]."</li> </ul>

<p><b>Article 17(1): Exemption for wastes and residues</b></p>	<p><b>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)]</b></p>	
<p><b>Approach to wastes and residues</b></p>	<ul style="list-style-type: none"> <li>• 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 <b>rules related to</b> wastes and residues for the purposes of:</li> <li>• 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</li> </ul>	<p><b>Y</b></p> <ul style="list-style-type: none"> <li>• Scheme-Main, criterion 2.2 (5. Cross Compliance): "The default GHG values as defined in the RED [...] may be used only when their raw materials are: [...] c) wastes or residues other than agricultural, aquaculture and fisheries residues."</li> <li>• App4-GHG, p6 (7.1.1.1): "GHG emissions related to residue or waste feedstocks are considered to be zero up to the point of their collection. Waste and residue definition can be found from the scheme's main document in section 2.2., point 9. Regarding processing residues proof of sustainability requirements is not needed. For agricultural, aquaculture, fisheries and forestry residues sustainability requirements must be met. Minimum GHG emission savings must be fulfilled in either case."</li> <li>• App4-GHG, p7 (7.1.1.2): "Feedstock emissions related</li> </ul>

	<p>threshold]”).</p> <ul style="list-style-type: none"> <li>Whether or not certain feedstocks can be considered to have zero GHG emissions to the point of collection (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.”)</li> </ul> <p><b>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)).</b></p>	<p>to agricultural residues such as straw, bagasse, husks, cobs and nut shells as well as production residues including e.g. crude glycerine are considered to be zero up to the point of their collection.”</p> <ul style="list-style-type: none"> <li>App2–Traceability, 7.1: “For the traceability of sustainable biomass within the chain of custody two groups of requirements are important:             <ol style="list-style-type: none"> <li>1. Minimum requirements for the management system: these define requirements for the organization of the respective elements of the supply chain (responsibilities, procedures and reporting with respect to sustainability and traceability), see chapter 7.2.</li> <li>2. Information requirements regarding sustainable biomass. These describe necessary data for identification of biomass at any step of the supply chain, see chapter 7.3                 <ol style="list-style-type: none"> <li>a. Farm/estate (cultivation of sustainable biomass) <b>or point of origin of waste/residue material [...]</b>”</li> </ol> </li> </ol> </li> </ul>
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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
5.1 Economic operators shall use a mass balance system	<ul style="list-style-type: none"> <li>The mass balance system:               <ul style="list-style-type: none"> <li>a) allows consignments of raw material or biofuel with differing sustainability characteristics to be mixed;</li> <li>b) requires information about the sustainability characteristics and sizes of the consignments referred to in point (a) to remain assigned to the mixture; and</li> <li>(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.</li> </ul> </li> </ul>	<p><b>Y</b></p> <ul style="list-style-type: none"> <li>Scheme-Main, criterion 2.2 (6.1): "Economic operators shall use a mass balance system, that: a) allows consignments of raw materials 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."</li> <li>App2-Traceability, p3 (7.1): "Traceability will be achieved via mass balance or physical segregation systems and corresponding traceability declarations. This assures that origin, amount and related greenhouse gas (GHG) emissions can be uniquely identified and that the amount of biomass which has been withdrawn at the respective stage of the value</li> </ul>

			<p>chain does not exceed the amount supplied. For the traceability of sustainable biomass within the chain of custody two groups of requirements are important:</p> <ol style="list-style-type: none"> <li>1. Minimum requirements for the management system: these define requirements for the organization of the respective elements of the supply chain (responsibilities, procedures and reporting with respect to sustainability and traceability), see chapter 7.2.</li> <li>2. Information requirements regarding sustainable biomass. These describe necessary data for identification of biomass at any step of the supply chain, see chapter 7.3 <ol style="list-style-type: none"> <li>a. Farm/estate (cultivation of sustainable biomass) or point of origin of waste/residue material</li> <li>b. First gathering point (normally operations, warehouses or traders which source biomass from a variety of farms or plantations)</li> <li>c. Conversion of sustainable biomass (in case that the conversion unit is not the final interface)</li> <li>d. Conversion of sustainable biomass (in case that the conversion unit is the final interface, e.g., refining of sustainable fluid biomass)</li> <li>e. Supplier (of sustainable fluid biomass after the</li> </ol> </li> </ol>
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			<p>last interface)</p> <p>f. Warehouse (Storage of sustainable biomass, e.g. in farms, interfaces and warehouses or storage of fluid biomass or bio fuels in interfaces or warehouses)</p> <p>g. Transport of sustainable products (e.g. with truck, train, barge or vessel)"</p> <ul style="list-style-type: none"> <li>• App3-MB, p3 (4): "Mass balance system means a system in which "sustainability characteristics" remain assigned to "consignments". In the mass balance system, each economic operator [...] keeps track of the amount of sustainable biomass, biofuel or bioliquid it sources and the amount of sustainable biomass, biofuel or bioliquid it delivers (CEN/TC 383/WG 5 working draft July 2010).</li> </ul>
5.2 Prevention of double counting/claiming	<ul style="list-style-type: none"> <li>• [No specific text in Directive / Communication]</li> <li>• An information system needs to be included which is able to keep track of the flow of information through the supply chain.</li> </ul>	Y	<ul style="list-style-type: none"> <li>• Scheme-Main, criterion 2.2 (6.2): "Prevention of incorrect double counting/claiming. RED compliant data shall be recorded in the material accounting system by the organization after it has gained legal ownership of the input material, and has ensured the supporting documentation contains the correct RED compliant information (the required documentation is listed in detail in appendix 3, chapter 7.3)."</li> </ul>

		<ul style="list-style-type: none"> <li>• Scheme-Main, section 4.2 Management of the chain of custody: "The economic operators in the biofuel supply chain shall run a documented system that enables traceability of materials they handle. Traceability does not only cover the basic requirements that products can be traced forth and back throughout the value chain from origin to the point of final delivery, but also e.g. the possibility to specify what they are made of and how they have been processed [...]"</li> <li>• Scheme-Main, section 4.3 Mass balance: "Economic operators in biofuel supply chain shall have in place a mass balance system for controlling and monitoring of sustainability characteristics in the consignments. Mass balance method shall ensure that in any given point of the value chain (the site), the inputs and outputs of both volumes and related characteristics are controlled and in balance, e.g. data from feedstock purchased and sold is in balance at site level [...]"</li> <li>• App3-MB, section 7.3, p6: "When Neste Oil receives or delivers a consignment, the company will request or deliver a product declaration which ensures the compliance with RED. The product declaration concerning each consignment will include at least the</li> </ul>
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			<p>following information: [...] e) product description, f) Unique reference number enabling the tracing of the issued document within the internal mass-balance accounting system;[...].”</p> <ul style="list-style-type: none"> <li>• Scheme’s Requirement to keep track of all sustainability data with unique reference numbers in the ‘mass balance system’ should prevent double counting.</li> </ul>
<p>5.3 The mass balance system shall operate at least at the level of a site</p>	<ul style="list-style-type: none"> <li>• 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 (defined as a geographical location with precise boundaries within which products can be mixed).</li> </ul>	Y	<ul style="list-style-type: none"> <li>• Scheme-Main, criterion 2.2 (6.3): “The mass balance system shall operate at least at the level of a site. The mass balance system shall operate at a level where consignments could normally be in contact, typically a processing or logistical facility or site (defined as a geographical location with precise boundaries within which products can be mixed.”</li> <li>• App3-MB, p4 (7.1): “Mass balance means that no physical traceability is essential, but data from raw materials purchased and sales should be in balance in site level [...].”</li> <li>• App3-MB, p7 (7.5): “Neste Oil keeps track of all the quantities that come in and that go out from a unit that is defined to act as single reporting unit (site), and they are matched in terms of mass balance.”</li> </ul>



<p>5.4 The mass balance shall specify the timeframe over which the system operates</p>	<ul style="list-style-type: none"> <li>• 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.</li> <li>• Alternatively the balance could be achieved over an appropriate period of time and regularly verified.</li> <li>• In both cases it is necessary for appropriate arrangements to be in place to ensure that the balance is respected.</li> </ul>	<p>Y</p>	<ul style="list-style-type: none"> <li>• Scheme-Main criterion 2.2 (6.4): "The mass balance shall specify the timeframe over which the system operates. The balance in the system shall be achieved over an appropriate period of time and regularly verified. The inventory period duration shall be equal to or less than 3 months."</li> <li>• App3-MB, p4 (7.1): "The balance can be achieved over an appropriate period of time and regularly verified. The inventory period duration shall be equal to or less than 3 months."</li> <li>• App3-MB, p6 (7.4): "The mass balance method shall be applied within a periodic inventory period with a maximum duration of 3 months."</li> </ul>
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## Recognition of other voluntary schemes

Recognition of other voluntary schemes		
Requirement	Guidance	Assessment
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)	<ul style="list-style-type: none"> <li>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.</li> <li>Schemes may only recognise the <i>scope</i> of the voluntary scheme that the EC recognises in this context.</li> </ul>	<p><b>Y</b></p> <ul style="list-style-type: none"> <li>Scheme-Main, p18-19 (2.3):</li> <li>"This verification scheme uses to <b>[sic]</b> meta-standard concept, which utilizes principles and criteria of other relevant sustainability standards, currently: 2BSvs, ISCC, RBSA, RSB, RTRS, SQC, Red Cert, NTA 8080, RSPO RED, Biograce GHG calculation tool.</li> <li>"All the voluntary RED verification schemes recognized by the European Commission, and as listed in the transparency platform (<a href="http://ec.europa.eu/energy/renewables">http://ec.europa.eu/energy/renewables</a>) are valid to show compliance under this scheme as such. This is the case also with any part of the supply chain that is certified against the mentioned schemes.</li> <li>"Regarding all the schemes listed above: this HVO scheme only recognises EC-recognised schemes for the specific scope that the EC recognises schemes for.</li> <li>"Participants in the EC-recognised scheme shall provide relevant documentary evidence on the</li> </ul>

			<p>verification carried out according to the EC-recognised scheme prior to participating in this scheme. No supplementary checks are needed. In case there are gaps between the EC-recognized scheme (more limited scope) and HVO scheme, the participant in the HVO scheme shall provide supplementary checks as evidence for the verification process.”</p> <ul style="list-style-type: none"> <li>• Scheme-Main, 3: “Prior to participating in this voluntary scheme, all the biofuel feedstock suppliers and other economic operators shall be in compliance with the requirements of the HVO voluntary scheme. There are two ways to show compliance: <ol style="list-style-type: none"> <li>1. economic operators shall able to provide relevant documentary evidence on the verification carried out according to other EC-recognised scheme, as defined in the chapter 2.3., or</li> <li>2. economic operators shall be audited against the criteria set in the chapter 2.2 of this scheme. The verification audits are described in detail in the chapter 6 of this document.”</li> </ol> </li> </ul>
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## 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.

<b>Article 18.3: Adequate standard of independent auditing</b>	<b>Voluntary Schemes need to ensure a sufficient quality of auditing and verification</b>	
Requirements	Guidance	Assessment
6.1. Documentation management	<ul style="list-style-type: none"> <li>▪ The system ensures that economic operators must have a documentation management system.</li> <li>▪ It should be a condition of participation in voluntary schemes that economic operators:               <ul style="list-style-type: none"> <li>i) have an auditable system for the</li> </ul> </li> </ul>	<div data-bbox="1094 898 1157 1190" style="background-color: #00FF00; text-align: center; width: 30px;">Y</div> <ul style="list-style-type: none"> <li>• App2-Traceability, 3: "This instruction is applied in Neste Oil Corporation and may be applied by any biofuel producer seeking for compliance with the RED"</li> <li>• App2-Traceability, 7.1: "For the traceability of sustainable biomass within the chain of custody two groups of requirements are important:               <ol style="list-style-type: none"> <li>1. Minimum requirements for the management</li> </ol> </li> </ul>

	<p>evidence related to the claims they make or rely on;</p> <p>ii) keep any evidence for a minimum of 5 years; and</p> <p>iii) accept responsibility for preparing any information related to the auditing of such evidence.</p> <ul style="list-style-type: none"> <li>▪ 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.</li> </ul>		<p>system: these define requirements for the organization of the respective elements of the supply chain (responsibilities, procedures and reporting with respect to sustainability and traceability), see chapter 7.2.</p> <ul style="list-style-type: none"> <li>• 2. Information requirements regarding sustainable biomass. These describe necessary data for identification of biomass at any step of the supply chain, see chapter 7.3 [...]</li> <li>• App2-Traceability, 7.2: "The requirements for traceability shall be incorporated in the economic operator's operational management system to ensure correct implementation and maintenance of the chain of custody process"</li> <li>• App2-Traceability, 7.2.4: "The documentation shall be retained for a period of at least five years or longer if mandatory according to prevailing laws and regulations or certification schemes."</li> <li>• Scheme-Main, 4.1: "Each economic operator in the biofuel or bioliquid supply chain, which is at any point the legal owner of the product, shall put in place the administration necessary to maintain the chain of custody. Each economic operator in the chain of custody should appoint a person or position with</li> </ul>
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			<p>responsibility for compliance with the chain of custody procedures.”</p> <ul style="list-style-type: none"> <li>• Scheme-Main, 4.2: “The economic operators in the biofuel supply chain shall run a documented system that enables traceability of materials they handle. [...] In the biofuel or bioliquid supply chain, in which each economic operator delivers or transfers a consignment of RED compliant product, the economic operator shall provide the next economic operator with a product declaration clearly stating that RED requirements are met.”</li> <li>• Scheme-Main, 8: “The economic operator is responsible for preparing all information related to the auditing.”</li> </ul>
6.2 Retrospective audits	<ul style="list-style-type: none"> <li>▪ 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.</li> </ul>	Y	<ul style="list-style-type: none"> <li>• Scheme-Main, 2.2 (8.2): “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.”</li> <li>• Scheme-Main, 6: “This voluntary scheme requires regular, annual, retrospective auditing of a sample of</li> </ul>

	<ul style="list-style-type: none"> <li>For these audits requirements are that the auditor should be:             <ol style="list-style-type: none"> <li>Independent of the activity being audited</li> <li>Free from conflict of interest</li> <li>Competent                 <ul style="list-style-type: none"> <li>Point 1 and 2 mean that the audit shall be carried out by an external third party (not the economic operator)</li> <li>Point 3 mean that the auditor has the generic skills and the verification body has the general skills for performing audits; and</li> <li>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).</li> </ul> </li> </ol> </li> </ul>		<p>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.”</p> <ul style="list-style-type: none"> <li>Auditors requirements are detailed in 6.1.1; the analysis of this section is made in the section 6.5 Auditors competencies</li> </ul>
6.3 Audits before participation to the Voluntary Scheme	<ul style="list-style-type: none"> <li>As a general rule, a voluntary scheme should ensure that economic operators are audited before allowing them to</li> </ul>	Y	<ul style="list-style-type: none"> <li>Scheme-Main, 2.2 (8.3): “Economic operators shall be audited before they are allowed to participate in the voluntary scheme.”</li> </ul>

	<p>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.</p> <ul style="list-style-type: none"> <li>For these audits requirements are that the auditor should be: <ol style="list-style-type: none"> <li>Independent of the activity being audited</li> <li>Free from conflict of interest</li> <li>Competent <ul style="list-style-type: none"> <li>Point 1 and 2 mean that the audit shall be carried out by an external third party (not the economic operator)</li> <li>Point 3 mean that the auditor has the generic skills and the verification body has the general skills for performing audits; and</li> <li>The auditor has the appropriate specific skills necessary for conducting the audit related to the</li> </ul> </li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>Scheme-Main, 3: "Prior to participating in this voluntary scheme, all the biofuel feedstock suppliers and other economic operators shall be in compliance with the requirements of the HVO voluntary scheme. There are two ways to show compliance: <ol style="list-style-type: none"> <li>economic operators shall able to provide relevant documentary evidence on the verification carried out according to other EC-recognised scheme, as defined in the chapter 2.3., or</li> <li>economic operators shall be audited against the criteria set in the chapter 2.2 of this scheme. The verification audits are described in detail in the chapter 6 of this document."</li> </ol> </li> <li>Scheme-Main, 6: "Pre-audits must be performed before participation in the scheme in order to ensure operability and reliability of the control of the sustainability aspects within the product chain."</li> <li>Auditors requirements are detailed in 6.1.1; the analysis of this section is made in the section 6.5 Auditors competencies.</li> </ul>
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	<p>scheme's criteria and the aspect of the scheme that they are auditing (see 6.5).</p>		
<p>6.4 Group auditing [OPTIONAL – only relevant when group auditing is applied]</p>	<ul style="list-style-type: none"> <li>▪ 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, not other economic operators further down the supply chain.]</li> <li>▪ 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"> <li>○ What is the basis of the sample size?</li> <li>○ What is the threshold for non-compliance and they apply to the whole group?</li> <li>○ What are the implications/procedures of</li> </ul> </li> </ul>	Y	<ul style="list-style-type: none"> <li>• Scheme-Main, 2.2 (8.4): "Group audits may be performed for the producers of raw materials. <ul style="list-style-type: none"> <li>○ Group auditing is only allowed when Group has a valid certificate by a valid EC recognized voluntary scheme.</li> <li>○ Groups for auditing are not formed under this voluntary scheme.</li> <li>○ The validity of approved Group's certificate, including its coverage shall be checked in yearly verification audit."</li> </ul> </li> <li>Scheme-Main, 2.3: "Regarding group certificates: Only such raw material producing groups that possess a valid certificate granted under EC recognized RED verification scheme, are allowed to participate in this voluntary scheme."</li> </ul>

	<p>non-compliance?</p> <ul style="list-style-type: none"> <li>○ Are downstream parties informed of the non-compliance?</li> </ul> <ul style="list-style-type: none"> <li>▪ 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.</li> <li>▪ Group auditing for the purpose of calculating GHG savings is only acceptable when the units have similar production systems and products.</li> </ul>		
6.5 Auditor competencies	<ul style="list-style-type: none"> <li>• For these audits requirements are that the auditor should be: <ul style="list-style-type: none"> <li>1. Independent of the activity being audited</li> <li>2. Free from conflict of interest</li> <li>3. Competent <ul style="list-style-type: none"> <li>○ Point 1 and 2 mean that the audit shall be carried out by an external third party (not the economic operator)</li> <li>○ Point 3 mean that the auditor has</li> </ul> </li> </ul> </li> </ul>	Y	<ul style="list-style-type: none"> <li>• Scheme-Main, 6.1.1: "Mandatory requirements for the verifier are the following: <ul style="list-style-type: none"> <li>- is external: the audit is not performed by the economic operator or the scheme itself</li> <li>- is independent: auditors are from third party and free from conflict of interest</li> <li>- has the generic skills: the verification body has the general skills for performing audits, and</li> <li>- has the appropriate specific skills: auditor team has the skills necessary for conducting the audit related to the scheme's criteria, e.g. land use, agriculture and</li> </ul> </li> </ul>

	<p>the generic skills and the verification body has the general skills for performing audits; and</p> <ul style="list-style-type: none"> <li>○ 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.</li> <li>○ Namely:</li> <li>○ Land use criteria: Relevant experience, in agriculture, ecology or similar.</li> <li>○ Chain of Custody system: Experience in mass balance systems, traceability, data handling or similar.</li> <li>○ GHG: Relevant experience in GHG accounting.</li> </ul>		<p>ecology etc.; chain of custody system; mass balance; greenhouse gas calculations and Management; experience and understanding of lifecycle assessment according to ISO 14040.</p> <p>The verification has to fulfil the following mandatory requirements:</p> <ul style="list-style-type: none"> <li>- Audits shall be carried out in conformity with standard ISO 19011 establishing guidelines for quality and/or environmental management systems auditing.</li> <li>- Accreditation against standard ISO Guide 65 establishing general requirements for bodies operating product certification systems.</li> <li>- Follow the ISO 17021 standard, Conformity assessment -- Requirements for bodies providing audit and certification of management systems</li> <li>- Accreditation against standard ISO 14065 establishing requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition.</li> </ul> <p>In the selection of the verifier, preference is given to auditors that</p> <ul style="list-style-type: none"> <li>- have experience of carrying out audits in conformity with the International Standard on Assurance Engagements (ISAE) 3000</li> <li>- are accredited for the kind of auditing tasks they are</li> </ul>
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			<p>to undertake.</p> <p>The verifier shall select members to the auditor team to ensure sufficient knowledge and skills to perform the audit they are undertaking. Auditors shall have sufficient knowledge and specific skills required to audit schemes criteria (2.2). Auditors must have university degree or work experience (minimum 3 years) at relevant work area that contributes to the development of knowledge and specific skills required to audit the schemes criteria. All auditors must have completed training (minimum 15 hours) in audit principles, procedures and techniques by standard ISO 19011. Auditors should acquire audit experience under the supervision of an audit team leader (minimum 10 days). Audit team leader should have acquired additional audit experience working under the direction and guidance of an audit team leader (minimum 20 days)."</p>
6.6 Management of the audit	<ul style="list-style-type: none"> <li>▪ Audits shall be properly planned, conducted and reported on</li> <li>▪ The sustainability system has clear procedures that describe how audits should be conducted</li> </ul>	Y	<ul style="list-style-type: none"> <li>• Scheme-Main, 6.1.2: "Verification audits shall be properly planned, conducted and reported on. The following steps are to be taken by the auditor: <ul style="list-style-type: none"> <li>— identifies the activities undertaken by the economic operator which are relevant to the scheme's criteria,</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>• Audit includes the following: <ul style="list-style-type: none"> <li>◦ 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;</li> <li>◦ 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;</li> <li>◦ Request the operator to provide any missing elements of audit trails, explain variations, or revise claims or calculations, before reaching a final verification conclusion.</li> </ul> </li> <li>• ISO 19011: 2002 (plan, do, act, check), or justified equivalent, covers the above requirements.</li> </ul>		<ul style="list-style-type: none"> <li>— identifies the relevant systems of the economic operator and its overall organisation with respect to the scheme's criteria and checks the effective implementation of relevant control systems, e.g. the internal audit program,</li> <li>— establishes at least a 'limited assurance level' in the context of the nature and complexity of the economic operator's activities,</li> <li>— analyses the risks which could lead to a material misstatement, based on the verifier's professional knowledge and the information submitted by the economic operator,</li> <li>— draws 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,</li> <li>— carries 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,</li> <li>— requests the operator to provide any missing elements of audit trails, explain variations, or revise claims or calculations, before reaching a final</li> </ul>
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			<p>verification conclusion.”</p> <ul style="list-style-type: none"> <li>• Scheme-Main, 6.1.1: “The verification has to fulfil the following mandatory requirements: <ul style="list-style-type: none"> <li>- Audits shall be carried out in conformity with standard ISO 19011 establishing guidelines for quality and/or environmental management systems auditing.”</li> </ul> </li> <li>• Scheme-Main, 6.1.3: “The RED basic criteria (greenhouse gas savings, no-go areas (as defined in the this scheme in chapter 2.2., sub-paragraphs 2-4, e.g. peatland use), mass balance system and regulatory compliance are regarded as major non-conformities that have to be corrected within two weeks of the audit, or the economic operator is not given a certificate or a valid certificate is cancelled. Minor non-conformities are expected to be corrected within 6 months time and will be followed up in the surveillance audit.</li> </ul> <p>For the supplier audit, the supplier should made use of the audit results and close whatever gaps highlighted in the shortest possible time.</p> <p>Non-conformities are communicated to the participant and the owner of the scheme immediately in report in writing by the verifier.”</p>
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6.7 Establishment of at least a "limited assurance level"	<ul style="list-style-type: none"> <li>A "limited assurance level"<sup>3</sup> 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"</li> </ul>	Y	<ul style="list-style-type: none"> <li>Main elements related to this issue were quoted above</li> <li>Scheme-Main, 6.1.2: "The following steps are to be taken by the auditor (...): establishes at least a 'limited assurance level' in the context of the nature and complexity of the economic operator's activities"</li> <li>App2-Traceability, 7.3.1: "The product declaration concerning each consignment will include at least the following information: b) conformity assessment statement reference or other valid reference demonstrating the RED compliance of the economic operator, k) Reference to third party conformity assessed sustainability criteria certified according to EC recognized voluntary scheme."</li> </ul>
6.8 Accreditation	<ul style="list-style-type: none"> <li>Accreditation by a national accreditation body affiliated to the International Accreditation Forum (IAF); or</li> <li>Accreditation as a full member or 'associate' member of ISEAL; or</li> <li>'Commitment to comply' with ISO</li> </ul>	Y	<ul style="list-style-type: none"> <li>Scheme-Main, 6.1: "Verifiers of this sustainability scheme are selected taking into account assessment and recognition requirements by the Commission, or relevant national accreditation bodies. The relevant national accreditation bodies are official bodies that have been given the authority to accredit the operators for the verification processes in the national</li> </ul>

<sup>3</sup> 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".

	<p>17011: 2004 (General requirements for accreditation bodies accrediting conformity assessment bodies), or justified equivalent, within 3 years (consistent with ISEAL associate member)</p>		<p>legislations imposing the RED. Accreditation may be obtained through:</p> <ul style="list-style-type: none"> <li>a) Accreditation by a national accreditation body affiliated to the International Accreditation Forum (IAF)</li> <li>b) Accreditation as a full member or 'associate' member of ISEAL</li> <li>c) 'Commitment to comply' with ISO 17011: 2004 (General requirements for accreditation bodies accrediting conformity assessment bodies), or</li> <li>d) justified equivalent, within 3 years (consistent with ISEAL associate member)"</li> </ul> <ul style="list-style-type: none"> <li>• Scheme-Main, 1: "The effective date is the date the European Commission recognizes this system as a voluntary scheme for the verification of RED compliance."</li> <li>• The section 2.3 "Meta-standard approach" details the links of this scheme with other RED voluntary schemes.</li> </ul>
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