

Public report  
on the assessment of

certification scheme GGL

(request for advice from May 2019)

against the Dutch legal sustainability criteria  
for solid biomass for energy applications

by the

Advisory Commission on Sustainability  
of Biomass for Energy Applications

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## 1 Introduction

### 1.1 Dutch sustainability criteria for solid biomass for energy applications

In September 2013 more than 40 Dutch government bodies, companies and non-governmental organisations endorsed the National Energy Agreement for Sustainable Growth. Part of this Agreement deals with targets for the more sustainable use of energy in the years 2020 and 2023. Bio-energy plays an important role in meeting these targets. It was also agreed that sustainability criteria would be formulated for the large-scale application of biomass for cofiring in coal-fired power plants, and that these sustainability criteria would include forest management and climate aspects like greenhouse gas emissions, carbon debt and indirect land use change.

A working group with representatives from energy companies, environmental organisations and the government has further developed the sustainability criteria into principles and underlying criteria. As from 2015 these principles and criteria have been included as a condition in the subsidy regulation SDE+ for cofiring and for production of industrial steam from wood pellets, and from beginning 2018 these principles and criteria are laid down in environmental legislation. In order to demonstrate compliance with these principles and criteria, companies need to demonstrate that the biomass used fully meets the legal requirements. This can be achieved by use of certification schemes and/or by use of the verification protocol approved for this purpose by the Dutch minister of Economic Affairs and Climate Policy (minister of EZK).

### 1.2 The advisory commission sustainability biomass for energy applications

The independent advisory commission sustainability of biomass for energy applications (further in this document “commission” or “advisory commission” or “ADBE”) is installed by the Dutch government. The commission advises the minister of EZK on the extent to which certification schemes comply with the sustainability criteria in the Dutch legal ‘*regeling conformiteitsbeoordeling vaste biomassa voor energietoepassingen*’. The commission only gives advice on request of the minister, who receives applications for approval of certification schemes and has to decide on the approval. The minister of EZK will approve certification schemes per individual sustainability criterion, and will only approve schemes which address all management criteria. The use of a certification scheme leads to one or several claims (for instance the claim “GGL certified”). The ADBE will advise which Dutch sustainability criteria are covered by each claim of the scheme.

Energy companies can use the approved certification schemes and their claims to demonstrate that the solid biomass which they use complies with the Dutch legal sustainability criteria, either as “sustainable biomass” or as “controlled biomass”. Demonstrating compliance is a condition for receiving subsidy from the so-called [SDE+ subsidy scheme](#) for cofiring of solid biomass in coal-fired power stations or for the large-scale production of industrial steam from solid biomass. Certification schemes might not be approved for all sustainability criteria. In this case a combination of two or more certification schemes and/or a combination of certification and verification might be required to show compliance with all Dutch legal sustainability criteria.

### 1.3 Readers guide

In chapter 2 of this report the assessment procedure of the advisory commission plus the application by GGL and the timeline of the assessment are briefly explained. Chapter 3 gives a summary of the findings from the assessment by the commission for the certification scheme GGL. In chapter 4, details on the commission’s judgement are given, and chapter 5 lists the documents and sources that were used when performing this assessment. This report comes with two annexes: the first annex gives background information on the requirements for biomass categories and the Chain-of-Custody (CoC) system from Dutch legislation, and the second annex lists the abbreviations that are used throughout this report.

## 2 The commissions' assessment procedure and assessment of GGL

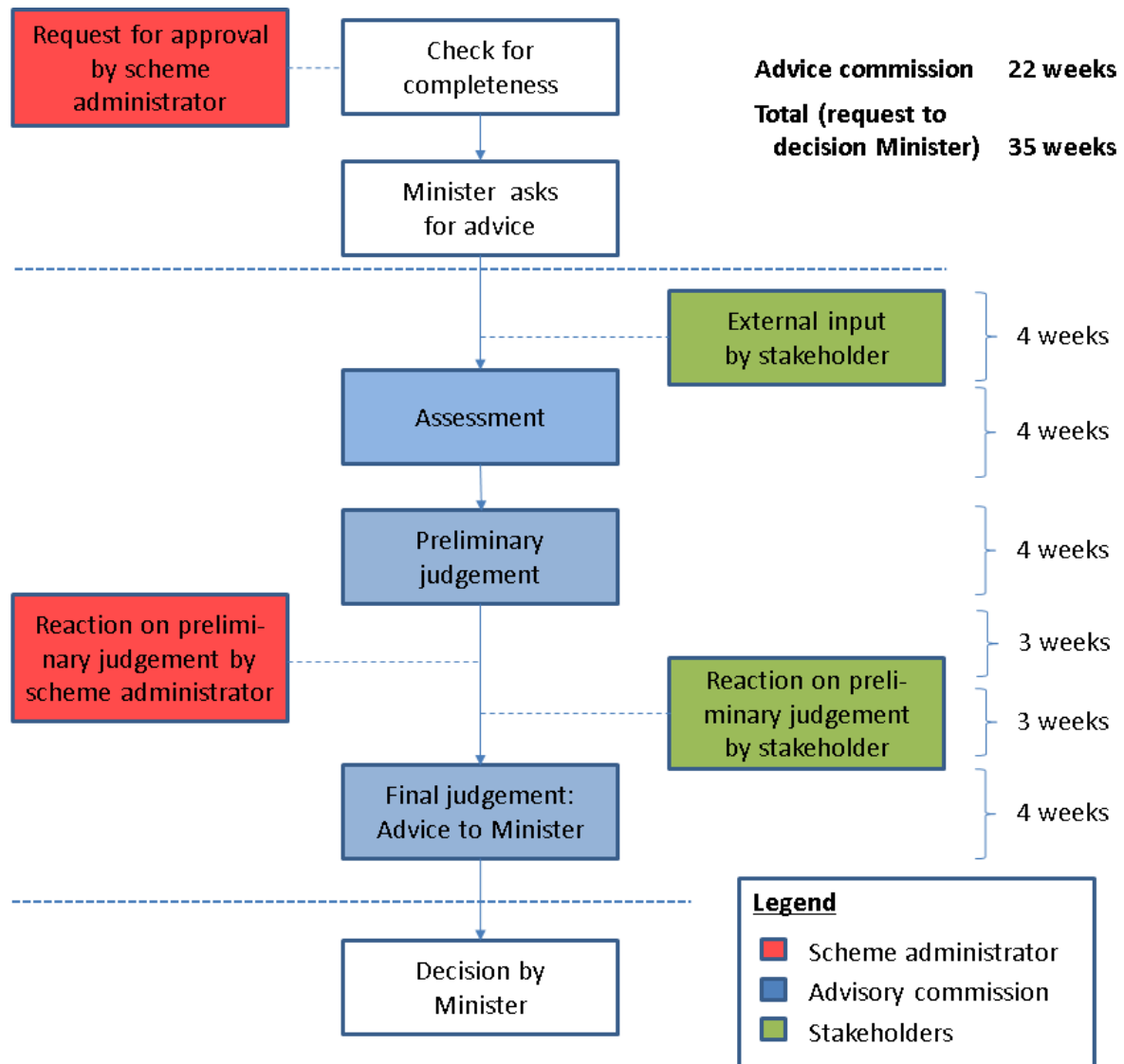
### 2.1 Assessment protocol

The assessment procedure of the advisory commission is described in a document called "toetsingsprotocol" (assessment protocol). The actual version of this protocol can be found on the [website of the advisory commission](#). The assessment protocol is available in Dutch language only. An English summary of the assessment procedure can be found on [this webpage](#).

The current application of the certification scheme "Green Gold Label" (GGL) is assessed using version 2.3 of the assessment protocol.

### 2.2 Summary of the assessment procedure

Schematically the procedure is visualised in the figure below.



## 2.3 Application by GGL

The GGL scheme manager made an application to the Dutch ministry of EZK in which approval of GGL is requested for:

- the Dutch sustainability criteria under Principles P1 to P12;
- biomass categories 1, 2, 3 and 4; and
- geographical coverage “Global”.

The GGL certification scheme generates two claims: “GGL-Certified” and “GGL-Controlled”. In the application form, the GGL scheme manager indicated that the GGL chain of custody requirements include controlled biomass.

Moreover, in the application form the GGL scheme manager indicated that the GGL scheme includes a risk based approach for demonstrating at a regional level that biomass of category 2 is sustainable (for biomass for which the sustainability has not been demonstrated at forest management level). Approval is also requested for this risk based approach.

The following scheme documents were used for the assessment of the application:

- GGLS1 – Chain of Custody Criteria - Version 3-1 (May 2018)
- GGLS1 annex - List of Prohibited Materials - Version 1-0 (October 2017)
- GGLS2 - Agricultural Source Criteria - Version 2-3 (December 2018)
- GGLS4 – Transaction and Product Certificate - Version 2-2 (March 2017)
- GGLS5 - Forest Management Criteria - Version 2-3 (January 2019)
- GGLS5 - Forest Management Criteria - Version 2-4 (June 2019)
- GGL 1a. Instruction document Greenhouse Gasses Calculations - Version 2-2 (March 2018)
- GGL 1b. Green Gold Label Raw Material Statement - Version 2-4 (May 2018)
- GGL 1c. Endorsed Schemes - Version 1-1 (May 2019)
- GGL 4a. Transaction Statement - Version 1-3 - template (February 2019)
- GGL 4b. Transaction Statement guidance - Version 1-0 (November 2018)
- GGL Certification Regulation - Version 7-3 (February 2019)
- GGL Certification Regulation - Version 7-5 (July 2019)
- GGL Glossary - Version 2-5 (February 2019)
- GGL Glossary - Version 2-6 (June 2019)

In addition to the scheme documents the Commission also used the following information and documents:

- Stakeholder consultation announcement on Feb. 23, 2019
- Stakeholder consultation result
- GGL Certification Agreement Version 1-2 - Control Union Certifications BV

## 2.4 Timeline of the GGL assessment

The commission received a request for advice on the GGL application on May 28, 2019.

This was the third request for advice that the commission received on GGL; the first request for advice from October 2017 did not result in an advice as GGL has withdrawn its first request for approval, and the second request for advice from July 2018 resulted in an advice to approve GGL for the sustainability criteria under Principles P1 and P12 for biomass category 5. This advice by the commission (in English) and a decision by the Minister of EZK (in Dutch) are published [on this webpage](#) (Dutch). The advice by the commission is also published [on this English webpage](#).

On the May 2019 request for advice, the commission completed its preliminary judgement in June 2019. This preliminary judgement was sent for comments to the scheme manager on June 25. On July 9, the GGL scheme manager responded to the preliminary judgement and sent in three modified

scheme documents. After questions by the commission, the GGL scheme manager changed one of these documents and submitted the modified version of this document on July 10, 2019.

As a result of the modified scheme documents, the assessment procedure was temporarily stopped. On July 12<sup>th</sup>, the commission discussed the changes in the scheme documents, concluded that changes in this documents were small and sent out a news message announcing the continuing of the procedure with this updated documents.

In September 2019 the commission came to its final judgement, which is described in this report. The advice that the commission has sent on September 20, 2019 to the minister of EZK consists of a cover letter plus this report.

## 2.5 External input

Stakeholders have been given the opportunity to submit external input to the commission during the first four weeks of the procedure (see also paragraph 2.2). For this application by the certification scheme GGL no external input was received.

### 3 Summary of findings on certification scheme GGL

A summary of the commission's findings on the application for approval by the certification scheme GGL is given in the first five paragraphs of this chapter 3. The last paragraph in this chapter lists the GGL scheme documents to which these findings apply. Details on the commission's findings are given in chapter 4 "Full assessment tables for certification scheme GGL". In chapters 3 and 4 reference is made to the "Dutch regulation", which is the Dutch *regeling conformiteitsbeoordeling vaste biomassa voor energietoepassingen*. The sustainability and management criteria referred to by the numbers in this chapter and listed in chapter 4 and are copied from the Dutch regulation.

The commission advises that GGL can additionally (in comparison to the approval already granted for biomass category 5) be approved for the claim "GGL-Certified" for biomass categories 1 - 4 and for all sustainability criteria under principles P2, P3, P4, P5, P6, P7, P8, P9, P10, P11 and P12. In addition to that, GGL can also be approved for using the Risk based approach for biomass category 2 for the same sustainability criteria except for criterion 5.1 which is not relevant for category 2.

The commission concludes that GGL partly addresses criterion 1.1. For the claim "GGL-Controlled", the commission advises to approve GGL for biomass categories 1 and 2 for all relevant sustainability criteria except for criterion 1.1.

The advice is given for the geographical scope "worldwide".

#### 3.1 Findings on classification of biomass and on the first link in the CoC to be certified

GGL certification starts at the "GGL program participant" (the pellet mill), and hence not at the forest management level. However, as GGL requires that the conformity assessment is started at the forest management level, the commission concludes that the conditions on the first link in the Chain-of-Custody (CoC) from Table 2 in Annex D of the Dutch regulation are met.

The commission has concluded that GGL participants – when delivering biomass through the Chain of Custody - have to use the five biomass categories from the Dutch regulation. The commission has also concluded that the certification scheme GGL meets all other requirements in the Dutch legislation on classification of biomass and on the first link in the CoC to be certified for biomass categories 1, 2, 3 and 4.

#### 3.2 Findings for management criteria

A certification scheme can only be approved if the scheme complies with all management criteria. The ADBE already concluded for the earlier application (July 2018) that the GGL scheme meets all management criteria.

The ADBE checked and concluded that GGL followed its own procedure when modifying the GGL scheme documents, that GGL published the modified scheme documents, and hence that GGL still complies to all Dutch management criteria (for further details see paragraph 4.2).

#### 3.3 Findings for individual sustainability criteria (claim "GGL-Certified")

GGL allows several options to demonstrate compliance to the sustainable forest management (SFM) criteria: it allows (A) the use of GGL endorsed forest management certification systems or, as an alternative, to use document GGLS5 which offers three options to demonstrate compliance to the requirements in GGLS5: (B1) Individual verification, (B2) Group or regional association and (B3) Risk based approach. The commission has concluded that GGL's individual verification (B1) and the group certification through the GGL Group or regional association (B2) meet the requirements from the Dutch regulation. The commission has also concluded that the GGL Risk based approach (B3) for

biomass category 2 fulfils the requirements that are given in the Dutch verification protocol. Hence the commission concludes that GGL can be approved for the claim “GGL-Certified” for biomass categories 1, 2, 3 and 4. In case the claim “GGL certified” is based on an endorsed scheme (A), then the commission is of opinion that the endorsed scheme shall demonstrate compliance to the sustainability criteria related to forest management, not GGL. This is further explained under general point 0.1 in paragraph 4.3.

The minister of EZK will approve certification schemes per claim and per individual sustainability criterion from the Dutch legal regulation. The commission has assessed compliance against the Dutch sustainability criteria for the GGL claim “GGL-Certified” (see table below) and for the GGL claim “GGL-Controlled” (see paragraph 3.4).

The table below (which is on the claim “GGL-Certified”) only shows the names of the principles, it does not show names or descriptions of the individual criteria. Please refer to the table in paragraph 4.3 for further details. Green colours indicate the criteria for which the ADBE gives a positive advice to the Minister of EZK.

Principle	Number of the criterion as related to the respective principle to the left							
	1	2	3	4	5	6	7	8
P1: GHG emissions	*							
P2: Soil quality								
P3: Carbon sinks								
P4: Long-term carbon debt								
P5: Indirect Land Use Change (ILUC)								
P6: Laws and regulations								
P7: Carbon sinks								
P8: Regulating effect and quality, health and vitality of forest								
P9: Production capacity, safeguard future of forests								
P10: Management system								
P11: Forest management by a group or regional association								
P12: Chain of custody system								
P13: Chain of custody system for a group								

\*: Please note that the commission scores only the second part of criterion 1.1 as the first part cannot be complied with through certification, see also the text under criterion 1.1 in paragraph 4.3.

**Legend (scoring table)**

Colour	Score	Meaning
Dark green :	3	The sustainability criterion is fully addressed by GGL.
Light green :	2	The sustainability criterion is largely addressed the GGL. Supplementary verification or another approved certification scheme is not needed.
Orange :	1	The sustainability criterion is partly addressed by GGL. Supplementary verification or another approved certification scheme is needed for those elements that are not addressed.
Red :	0	The sustainability criterion is not or is insufficiently addressed by GGL. Additional verification or another approved certification scheme is required for the entire sustainability criterion.
Grey :		No request for approval.



The commission concludes that GGL partly addresses criterion 1.1. The criteria under principle P13 are not applicable as GGL did not request approval for these criteria.

### 3.4 Findings for controlled biomass (claim “GGL-Controlled”)

For the claim “GGL-Controlled”, the commission advises to approve GGL for Dutch sustainability criteria 3.1, 3.2, 3.3, 4.1, 4.2, 4.3, 5.1, 7.1 and 7.3 for biomass categories 1 and 2 and with geographical scope “worldwide” under the condition that an auditor has confirmed compliance to GGLS5 principles 7, 8 and 9, plus GGLS5 criteria 2.1 and 2.3. The commission comes to this advice as GGL requires that “controlled raw materials shall also comply with criteria 1.14 of this standard and principle 7, principle 8, principle 9, criteria 2.1 and criteria 2.3 of GGLS5, and as these GGL principles and criteria demonstrate compliance to the Dutch sustainability criteria mentioned above, as is further explained in paragraph 4.4.

In case the claim “GGL-Controlled” is based on an endorsed scheme, then the commission is of opinion that the endorsed scheme shall demonstrate compliance to the sustainability criteria, not GGL. This is further explained under general point 0.1 in paragraph 4.3.

### 3.5 Findings for the risk based approach

The commission has noted that the GGL certification scheme contains, in Appendix A of scheme document GGLS5, a slightly reworded copy of the Dutch requirements on the risk based approach (as listed in chapter 8 of the Dutch verification protocol). The commission has concluded that GGL includes the same requirements for the risk based approach as compared to requirements in the Dutch verification protocol. The commission advises to approve GGL for the risk based approach.

### 3.6 Scheme documents

This advice is based on the scheme documents – including the versions of these scheme documents – as listed below. This is relevant as the decision of the Dutch minister of EZK on the approval of GGL will apply to the current “version” of the GGL certification scheme, which consists of the documents including version numbers as listed below.

- GGLS1 - COC criteria v3-1
- GGLS2 - Agricultural Source Criteria v2-3
- GGLS4 - Transaction and Product Certificate v2-2
- GGLS5 - Forest Management Criteria v2-4
- GGL 1a. Instruction doc. GHG Calculations v2-2
- GGL 1b. Raw Materials Statement v2-4
- GGL 1c. Endorsed schemes v1-1
- GGL 4a. Transaction statement v1-3 - template
- GGL 4b. Transaction statement guidance v1-0
- GGL Certification Regulation v7-5
- GGL Glossary v2-6

## 4 Assessment tables for certification scheme GGL

This chapter contains five paragraphs on respectively a number of general topics of the GGL application (4.1), on the management criteria (4.2), on the sustainability criteria for the claim “GGL-Certified” (4.3), on the sustainability criteria for the claim “GGL-Controlled” (4.4) and on the Risk based approach (4.5). The scores “3”, “2”, “1” and “0” plus the colours that are used in the tables in this chapter, are explained in the legend in paragraph 3.3.

### 4.1 Assessment of classification of biomass and on first link in CoC to be certified

Annex D of the Dutch regulation contains two tables (which are copied into Annex I of this report) with a number of general requirements on biomass categories and on the first link in the CoC to be certified. The ADBE has assessed whether GGL meets these requirements. One important aspect is whether GGL can make a distinction between the five biomass categories. The commission has concluded that GGL participants – when delivering biomass through the Chain of Custody - have to categorise all inputs and outputs into the five biomass categories from the Dutch regulation. Documents used throughout the GGL chain of custody contain information on the size of the forest management unit (FMU) allowing to distinguish biomass category 2 from biomass category 1. The commission has also concluded that the conformity assessment starts – in case of biomass of category 1 or 2 – at the FMU (so at the forest owner or the forest manager) although the biomass producer (e.g. a pellet mill owner) is the first company in the chain-of-custody (CoC) to be GGL-certified. As a result, the commission has concluded that GGL meets all requirements from Annex D of the legal Dutch regulation.

### 4.2 Assessment table for management criteria

The table below contains details of the assessment of the advisory commission on the GGL certification scheme against the Dutch management criteria from the “regeling conformiteitsbeoordeling vaste biomassa voor energiedoeleinden”. The ADBE already concluded for the earlier application (July 2018) that the GGL certification scheme meets all management criteria. During the current assessment the ADBE checked whether GGL followed its own procedure.

<b>Management criteria</b> to be checked by the ABDE (from the Dutch “regeling conformiteitsbeoordeling vaste biomassa voor energiedoeleinden”)	<b>ADBE judgement</b> on whether GGL complies with the management criteria
<p>Has the scheme manager followed the own procedures for modification of the certification scheme (which is part of the management criteria), and does it still comply with the eight management criteria. This concerns management criterion 2 “The development of the scheme is transparent and participation in the process of development of the scheme is open to anyone” and management criterion 5 “The scheme is publicly available or accessible under fair, reasonable and non-discriminatory conditions”.</p>	<p>The commission has checked whether the GGL scheme manager followed its own procedures when updating the GGL certification scheme.  The commission has noticed that GGL performed an open stakeholder consultation after the scheme documents were recently modified (with modifications including the addition of indicators to the criteria in GGLS5). By doing so, GGL did follow its own scheme management procedures as described in the GGL certification regulation.  Moreover GGL published the new scheme documents, and as a result the commission concludes that GGL still complies with the Dutch management criteria as listed in the regulation.</p>

### 4.3 Assessment tables on sustainability criteria for the claim “GGL-Certified biomass”

The minister of EZK will approve certification schemes per claim from the certification scheme and per individual sustainability criterion from the Dutch regulation.

The commission has assessed whether the certification scheme GGL addresses the Dutch sustainability criteria from the Dutch regulation. The results of the assessment for the claim “GGL-Certified” are given in the tables below. The first table lists two general points that the commission found during its assessment.

General point		
0.1	GGL endorsement of (a) forest management certification systems, (b) forest management controlled certification systems and (c) agricultural management certification systems.	<p>GGL endorses other schemes, as can be concluded from GGLS1 requirement 4.4 and from the document GGL 1c. Endorsed schemes.</p> <p>The commission has no opinion on the fact that GGL endorses other schemes (FSC and PEFC) other than that it acknowledges that – by doing so – GGL can bring forward through the CoC information on the fact that the sustainability (forest management criteria) was demonstrated at the pellet mill by an GGL endorsed scheme (FSC or PEFC). To be fully clear on this: by doing so, compliance with forest management criteria at the FMU level hence is demonstrated by the other (FSC, PEFC) scheme, not by GGL. Whether or not this proof is accepted in The Netherlands will depend on whether the GGL endorsed scheme is approved for demonstrating compliance with these criteria by the Dutch Minister of EZK. A consequence of this is that the information which certification scheme was used to demonstrate compliance with the SFM criteria, must be brought through the CoC to the end user (see also the commissions’ judgement on sustainability criterion 12.4, point 7).</p> <p>To be fully clear: If a GGL certified pellet mill receives feedstock with an GGL endorsed Forest Management Scheme claim, then the certification scheme that was used to demonstrate compliance with the SFM criteria must be known by the end user of the pellets produced by this pellet mill. The information to be passed on through the CoC must be (starting from Jan. 1, 2020) the name of the FSC-approved or PEFC-endorsed scheme, as (a) there are countries with more than one FSC-approved or PEFC-endorsed scheme and (b) these schemes might not be approved (in the Netherlands) for the same criteria.</p>
0.2	Copying Dutch criteria	<p>The commission has observed that GGL uses exact or almost exact copies of the text of the Dutch sustainability criteria and of the indicators from the Dutch verification protocol as criteria and indicators in the GGL scheme.</p> <p>In case a certification scheme includes an exact or an almost exact copy of a Dutch criterion without additional indicators or further instruction on how the criterion is to be implemented, the commission is of opinion that the score can be “largely addressed” at best. In case the scheme has added indicators to the criteria, the score can be “fully addressed”.</p>

#### Principle 1: The use of biomass leads to a substantial reduction in greenhouse gas emissions calculated across the entire chain in comparison with the use of fossil fuels

Sustainability criterion from the Dutch “regeling conformiteitsbeoordeling vaste biomassa voor energiedoeleinden”	ADBE judgement on whether “GGL-Certified biomass” complies with the sustainability criteria	Score
1.1a The reduction in CO <sub>2</sub> -eq emissions is calculated to be a minimum of 70% per year on average based on the EU reference value. The average emissions have a maximum of 56 g CO <sub>2</sub> -eq/MJ for electricity and 24 g CO <sub>2</sub> -eq/MJ for heat.	Please note that the advisory commission has concluded that the first part of criterion 1.1 (“a minimum GHG emission reduction of 70% per year on average”) can never be obtained through certification, as the average is to be calculated on several consignments which may be delivered to an end user by different certification systems or by a mix of certification and verification. As a result, the maximum score for this criterion 1.1 can only be “1”. The end user will make the GHG calculations when making a conformity year statement, for which requirements (including requirements on GHG calculations and including GHG default values that may be used) are included in the verification protocol.	1

1.1b	No consignment of biomass shall result in emissions above 74 g CO <sub>2</sub> -eq/MJ for electricity and 32 g CO <sub>2</sub> -eq/MJ for heat. The calculated maximum CO <sub>2</sub> -eq emission levels are based on the most recent European Commission publication on sustainability criteria for biomass and on the reference values provided for fossil fuels.	The part from Dutch criterion 1.1 "No consignment of biomass shall result in emissions above 74 g CO <sub>2</sub> -eq/MJ for electricity and 32 g CO <sub>2</sub> -eq/MJ for heat" is covered through criterion 10.2 from GGLS1. The part of Dutch criterion 1.1 on "the calculated maximum CO <sub>2</sub> -eq emission levels are based on the most recent European Commission publication on sustainability criteria for biomass and on the reference values provided for fossil fuels" is covered by GGL Instruction document 1a "Greenhouse Gasses Calculations" plus the document "Transaction statement guidance v.1-0" which gives guidance to GGL transaction statement v. 1-2.  As a result, the commission concludes that Dutch sustainability criterion 1.1 is partly addressed by GGL; the part under 1.1b to the left is covered, the part under 1.1a is not covered.	
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### Principle 2: Soil quality shall be maintained and where possible improved

	<b>Sustainability criterion</b> from the Dutch "regeling conformiteitsbeoordeling vaste biomassa voor energiedoeleinden"	<b>ADBE judgement</b> on whether "GGL-Certified biomass" complies with the sustainability criteria	<b>Score</b>
2.1	Best practices are applied for the maintenance or improvement of the soil and soil quality in relation to production, or the management objectives as these have been included in a management plan.	GGL criterion 11.1 from the GGL scheme document GGLS2 is a copy of Dutch sustainability criterion 2.1. The GGL indicators under this criterion are copied from the Dutch verification protocol. As GGL includes relevant indicators to the GGL criterion, the commission concludes that GGL fully addresses Dutch sustainability criterion 2.1.	3

### Principle 3: Production of raw biomass does not result in the destruction of carbon sinks

	<b>Sustainability criterion</b> from the Dutch "regeling conformiteitsbeoordeling vaste biomassa voor energiedoeleinden"	<b>ADBE judgement</b> on whether "GGL-Certified biomass" complies with the sustainability criteria	<b>Score</b>
3.1	Biomass is not sourced from permanently drained land that was classified as peat land on 1 January 2008, unless it can be demonstrated that the production and harvesting of the biomass does not result in water depletion of a previously undrained soil.	GGL criterion 7.1 from the GGL scheme document GGLS5 is a slightly reworded copy of Dutch sustainability criterion 3.1. The GGL indicators under this criterion are copied from the Dutch verification protocol. The definition of "peatland" in the GGL Glossary is the same as the definition in the Dutch regulation.  As GGL includes relevant indicators to the GGL criterion, the commission concludes that GGL fully addresses Dutch sustainability criterion 3.1.	3
3.2	Biomass is not sourced from land that was converted from wetland to an alternative, dryer ecosystem after 1 January 2008.	GGL criterion 7.2 from the GGL scheme document GGLS5 is a copy of Dutch sustainability criterion 3.2. The GGL indicator under this criterion is copied from the Dutch verification protocol. The definition of "wetlands" in the GGL Glossary is the same as the definition in the Dutch regulation.  As GGL includes a relevant indicator to the GGL criterion, the commission concludes that GGL fully addresses Dutch sustainability criterion 3.2.	3
3.3	Biomass is not sourced from wood plantations that were created by means of conversion of natural forests after 31 December 1997, unless	GGL criterion 7.3 from the GGL scheme document GGLS5 is a copy of Dutch sustainability criterion 3.3. The GGL indicators under this criterion are copied from the Dutch verification protocol.	3

	<p>the forest manager is not directly or indirectly responsible for the conversion. Biomass originating from wood plantations that were created after 1997 by means of conversion of degraded natural forests or degraded land is exempt from this requirement on condition that it is ecologically and economically justified to do so and that the forest manager is not directly or indirectly responsible for the degradation.</p>	<p>As GGL includes relevant indicators to the GGL criterion, the commission concludes that GGL fully addresses Dutch sustainability criterion 3.3.</p>	
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### Principle 4: The use of biomass does not result in a long-term carbon debt

<b>Sustainability criterion</b> from the Dutch "regeling conformiteitsbeoordeling vaste biomassa voor energiedoeleinden"		<b>ADBE judgement</b> on whether "GGL-Certified biomass" complies with the sustainability criteria	<b>Score</b>
4.1	<p>The forest management unit where the wood is sourced is managed with the aim of retaining or increasing carbon stocks in the medium or long term.</p>	<p>GGL criterion 8.1 from the GGL scheme document GGLS5 is a copy of Dutch sustainability criterion 4.1. The GGL indicator under this criterion is copied from the Dutch verification protocol.</p> <p>As GGL includes a relevant indicator to the GGL criterion, the commission concludes that GGL fully addresses Dutch sustainability criterion 4.1.</p>	3
4.2	<p>Biomass is not sourced from stumps unless these stumps had to be removed from the site for other reasons than wood or biomass production.</p>	<p>GGL criterion 8.2 from the GGL scheme document GGLS5 is a slightly reworded copy of Dutch sustainability criterion 4.2. The GGL indicators under this criterion are copied from the Dutch verification protocol.</p> <p>As GGL includes relevant indicators to the GGL criterion, the commission concludes that GGL fully addresses Dutch sustainability criterion 4.2.</p>	3
4.3	<p>On average less than half the volume of the annual round wood harvest from forests is processed as biomass for energy generation. Round wood from thinnings or from production forests with a rotation period of 40 years or less is exempt from this requirement.</p>	<p>GGL criterion 8.3 from the GGL scheme document GGLS5 is a copy of Dutch sustainability criterion 4.3. The GGL indicators under this criterion are copied from the Dutch verification protocol.</p> <p>As GGL includes relevant indicators to the GGL criterion, the commission concludes that GGL fully addresses Dutch sustainability criterion 4.3.</p>	3

### Principle 5: Biomass production does not result in Indirect Land Use Change (ILUC)

<b>Sustainability criterion</b> from the Dutch "regeling conformiteitsbeoordeling vaste biomassa voor energiedoeleinden"		<b>ADBE judgement</b> on whether "GGL-Certified biomass" complies with the sustainability criteria	<b>Score</b>
5.1	<p>Biomass sourced from bioenergy plantation systems that were planted after 1 January 2008 has a demonstrably low ILUC risk.</p>	<p>GGL criterion 9.1 from the GGL scheme document GGLS5 is a slightly reworded copy of Dutch sustainability criterion 5.1. GGL has added further requirements on how to calculate the ILUC risks (this must be done using the LIIB methodology). As a result, the commission concludes that GGL fully addresses Dutch sustainability criterion 5.1.</p>	3

	Biomass from forest management units smaller than 500 hectares is exempt from this requirement.		
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**Principle 6: Relevant international, national, regional and local laws and regulations are complied with**

<b>Sustainability criterion</b> from the Dutch "regeling conformiteitsbeoordeling vaste biomassa voor energiedoeleinden"	<b>ADBE judgement</b> on whether "GGL-Certified biomass" complies with the sustainability criteria	<b>Score</b>	
6.1	The forest manager holds the legal right to use the forest.	GGL criterion 1.1 from the GGL scheme document GGLS5 is a copy of Dutch sustainability criterion 6.1. The GGL indicator under this criterion is copied from the Dutch verification protocol.  As GGL includes a relevant indicator to the GGL criterion, the commission concludes that GGL fully addresses Dutch sustainability criterion 6.1.	3
6.2	The forest manager complies with all obligations to pay taxes and royalties.	GGL criterion 1.2 from the GGL scheme document GGLS5 is a copy of Dutch sustainability criterion 6.2. The GGL indicator under this criterion is copied from the Dutch verification protocol.  As GGL includes a relevant indicator to the GGL criterion, the commission concludes that GGL fully addresses Dutch sustainability criterion 6.2.	3
6.3	Anti-corruption legislation is complied with. If no anti-corruption legislation exists, the forest manager takes alternative anti-corruption measures proportionate to the scale and intensity of the management activities and the risk of corruption.	GGL criterion 1.3 from the GGL scheme document GGLS5 is a slightly reworded copy of Dutch sustainability criterion 6.3. The GGL indicators under this criterion are slightly reworded copies from the Dutch verification protocol.  The commission notes that the "all applicable" in the GGL criterion 1.3 creates room for interpretation. As a result the commission concludes that GGL largely addresses Dutch sustainability criterion 6.3.	2

**Principle 7: Biodiversity is maintained and where possible enhanced**

<b>Sustainability criterion</b> from the Dutch "regeling conformiteitsbeoordeling vaste biomassa voor energiedoeleinden"	<b>ADBE judgement</b> on whether "GGL-Certified biomass" complies with the sustainability criteria	<b>Score</b>	
7.1	Sites with a high conservation value and representative areas of the forest types that are found in the forest management unit have been identified and are protected and where possible enhanced. The sites may contain one or more of the following values: diversity of species, ecosystems and habitats, ecosystem services, ecosystems at landscape level and cultural values.	GGL criterion 2.1 from the GGL scheme document GGLS5 is a copy of Dutch sustainability criterion 7.1. The GGL indicators under this criterion are copied from the Dutch verification protocol.  As GGL includes relevant indicators to the GGL criterion, the commission concludes that GGL fully addresses Dutch sustainability criterion 7.1.	3

7.2	Measures have been taken to protect endangered plant and animal species and, if applicable, to increase the populations and enhance the habitats of these species.	GGL criterion 2.2 from the GGL scheme document GGLS5 is a copy of Dutch sustainability criterion 7.2. The GGL indicators under this criterion are copied from the Dutch verification protocol.  As GGL includes relevant indicators to the GGL criterion, and as GGL has copied the definition of “endangered species” from Dutch legislation into the GGL Glossary of Terms (version 2-6), the commission concludes that GGL fully addresses Dutch sustainability criterion 7.2.	3
7.3	The conversion of forests within the forest management unit to other forms of land use, including wood plantations, is not permitted unless: - the area concerned is small which means the total converted area over the years is no greater than 5% of the area of the forest management unit on benchmark date 1 January 2008; and - it clearly leads to long-term advantages for nature conservation; and - there is no damage or threat of damage to sites with a high conservation value.	GGL criterion 2.3 from the GGL scheme document GGLS5 is a slightly reworded copy of Dutch sustainability criterion 7.3. The GGL indicators under this criterion are copied from the Dutch verification protocol.  As GGL includes relevant indicators to the GGL criterion, the commission concludes that GGL fully addresses Dutch sustainability criterion 7.3.	3
7.4	In the case of wood plantations, there is a preference for native species, and a relevant percentage of the plantation must be able to revert to natural forest at a later stage.	GGL criterion 2.4 from the GGL scheme document GGLS5 is a slightly reworded copy of Dutch sustainability criterion 7.4. The GGL indicators under this criterion are copied from the Dutch verification protocol.  As GGL includes relevant indicators to the GGL criterion, the commission concludes that GGL fully addresses Dutch sustainability criterion 7.4.	3
7.5	Exploitation of non-timber forest products, including products from hunting and fishing, is regulated, monitored and controlled, among others to safeguard the maintenance of the biodiversity in the forests.	GGL criterion 2.5 from the GGL scheme document GGLS5 is a slightly reworded copy of Dutch sustainability criterion 7.5. The GGL indicator under this criterion is copied from the Dutch verification protocol.  As GGL includes a relevant indicator to the GGL criterion, the commission concludes that GGL fully addresses Dutch sustainability criterion 7.5.	3

### Principle 8: The regulating effect and the quality, health and vitality of the forest are maintained and where possible enhanced

<b>Sustainability criterion</b> from the Dutch “regeling conformiteitsbeoordeling vaste biomassa voor energiedoeleinden”		<b>ADBE judgement</b> on whether “GGL-Certified biomass” complies with the sustainability criteria	<b>Score</b>
8.1	The soil quality of the forest management unit is maintained and if necessary improved, with special attention to coasts, river banks, erosion-sensitive areas and sloping landscapes.	GGL criterion 3.1 from the GGL scheme document GGLS5 is a slightly reworded copy of Dutch sustainability criterion 8.1. The GGL indicators under this criterion are copied from the Dutch verification protocol.  As GGL includes relevant indicators to the GGL criterion, the commission concludes that GGL fully addresses Dutch sustainability criterion 8.1.	3
8.2	The water balance and quality of both groundwater and surface water in the forest management unit and downstream outside the	GGL criterion 3.2 from the GGL scheme document GGLS5 is a copy of Dutch sustainability criterion 8.2. The GGL indicators under this criterion are copied from the Dutch verification protocol.  As GGL includes relevant indicators to the GGL criterion, the commission concludes that GGL fully addresses Dutch	3

	forest management unit are at least maintained and where necessary improved.	sustainability criterion 8.2.	
8.3	Important ecological cycles present in the forest management unit are preserved, including carbon and nutrient cycles.	GGL criterion 3.3 from the GGL scheme document GGLS5 is a copy of Dutch sustainability criterion 8.3. The GGL indicators under this criterion are copied from the Dutch verification protocol.  As GGL includes relevant indicators to the GGL criterion, the commission concludes that GGL fully addresses Dutch sustainability criterion 8.3.	3
8.4	Unnecessary damage to ecosystems is prevented by applying <i>reduced impact logging</i> and the most suitable road construction methods and techniques for local conditions.	GGL criterion 3.4 from the GGL scheme document GGLS5 is a slightly reworded copy of Dutch sustainability criterion 8.4. The GGL indicators under this criterion are copied from the Dutch verification protocol. The definition of “reduced impact logging” in the GGL Glossary is the same as the definition in the Dutch regulation.  As GGL includes relevant indicators to the GGL criterion, the commission concludes that GGL fully addresses Dutch sustainability criterion 8.4.	3
8.5	If fires are used to achieve forest management objectives, such as regeneration of specific tree species, then adequate control measures have been taken.	GGL criterion 3.5 from the GGL scheme document GGLS5 is a copy of Dutch sustainability criterion 8.5. The GGL indicator under this criterion is copied from the Dutch verification protocol.  As GGL includes a relevant indicator to the GGL criterion, the commission concludes that GGL fully addresses Dutch sustainability criterion 8.5.	3
8.6	The forest management measures are designed to prevent and control diseases and pests where these form a threat to natural capital.	GGL criterion 3.6 from the GGL scheme document GGLS5 is a slightly reworded copy of Dutch sustainability criterion 8.6. The GGL indicators under this criterion are copied from the Dutch verification protocol.  As GGL includes relevant indicators to the GGL criterion, the commission concludes that GGL fully addresses Dutch sustainability criterion 8.6.	3
8.7	The use of chemicals is only permitted if ecological processes and the optimal deployment of sustainable alternatives prove insufficient. Pesticides classified as Type 1A and 1B by the World Health Organisation and chlorinated hydrocarbons are not permitted.	GGL criterion 3.7 from the GGL scheme document GGLS5 is a copy of Dutch sustainability criterion 8.7. The GGL indicators under this criterion are slightly reworded copies from the Dutch verification protocol.  As GGL includes relevant indicators to the GGL criterion, the commission concludes that GGL fully addresses Dutch sustainability criterion 8.7.	3
8.8	The accumulation of inorganic waste and litter is prevented or such waste and litter is collected, stored in approved areas and disposed of responsibly.	GGL criterion 3.8 from the GGL scheme document GGLS5 is a slightly reworded copy of Dutch sustainability criterion 8.8. The GGL indicators under this criterion are copied from the Dutch verification protocol.  As GGL includes relevant indicators to the GGL criterion and as – as a result of the rewording – the GGL criterion is more stringent than the Dutch criterion, the commission concludes that GGL fully addresses Dutch sustainability criterion 8.8.	3

### Principle 9: The production capacity for wood products and relevant non-timber forest products is maintained in order to safeguard the future of the forests

Sustainability criterion from the Dutch “regeling conformiteitsbeoordeling vaste biomassa voor energiedoeleinden”		ADBE judgement on whether “GGL-Certified biomass” complies with the sustainability criteria	Score
9.1	The production capacity of all forest types represented in the forest management unit is maintained.	GGL criterion 4.1 from the GGL scheme document GGLS5 is a copy of Dutch sustainability criterion 9.1. The GGL indicators under this criterion are copied from the Dutch verification protocol.	3



		As GGL includes relevant indicators to the GGL criterion, the commission concludes that GGL fully addresses Dutch sustainability criterion 9.1.	
9.2	The forest management unit is sufficiently protected against all forms of illegal exploitation of timber and non-timber forest products, including hunting and fishing, illegal establishment of settlements, illegal land use, illegally initiated fires and any other illegal activities.	GGL criterion 4.2 from the GGL scheme document GGLS5 is a copy of Dutch sustainability criterion 9.2. The GGL indicators under this criterion are copied from the Dutch verification protocol.  As GGL includes relevant indicators to the GGL criterion, the commission concludes that GGL fully addresses Dutch sustainability criterion 9.2.	3

**Principle 10: Sustainable forest management is achieved through a management system**

<b>Sustainability criterion</b> from the Dutch "regeling conformiteitsbeoordeling vaste biomassa voor energiedoelinden"		<b>ADBE judgement</b> on whether "GGL-Certified biomass" complies with the sustainability criteria	<b>Score</b>
10.1	The forest management system is designed to achieve the objectives of a forest management plan and covers the inventory, analysis, planning, implementation, monitoring, evaluation and adjustment cycle.	GGL criterion 6.1 from the GGL scheme document GGLS5 is a copy of Dutch sustainability criterion 10.1. The GGL indicators under this criterion are copied from the Dutch verification protocol.  As GGL includes relevant indicators to the GGL criterion, the commission concludes that GGL fully addresses Dutch sustainability criterion 10.1.	3
10.2	A forest management plan is drawn up that at least includes: - a description of the current condition of the forest management unit; - long term goals for the ecological functions of the forest management unit; - the annual allowable cut per forest type and, if applicable, the annual allowable harvest of non-timber forest products based on reliable and current data; - budget planning for the implementation of the forest management plan.	GGL criterion 6.2 from the GGL scheme document GGLS5 is a reworded copy of Dutch sustainability criterion 10.2. The GGL indicator under this criterion is copied from the Dutch verification protocol.  As GGL includes relevant indicators to the GGL criterion, the commission concludes that GGL fully addresses Dutch sustainability criterion 10.2.	3
10.3	Essential elements for the management of the forest are indicated on maps.	GGL criterion 6.3 from the GGL scheme document GGLS5 is a copy of Dutch sustainability criterion 10.3. The GGL indicators under this criterion are copied from the Dutch verification protocol.  As GGL includes relevant indicators to the GGL criterion, the commission concludes that GGL fully addresses Dutch sustainability criterion 10.3.	3
10.4	The implementation of the forest management plan is periodically monitored and the ecological effect of the forest management is evaluated.	GGL criterion 6.4 from the GGL scheme document GGLS5 is a copy of Dutch sustainability criterion 10.4 plus the addition "on the basis of reliable data". The GGL indicators under this criterion are copied from the Dutch verification protocol.  As GGL includes relevant indicators to the GGL criterion, the commission concludes that GGL fully addresses Dutch sustainability criterion 10.4.	3

10.5	The forest management is implemented by professional office and field staff, whose expertise and knowledge is maintained by means of an effective and regular training programme.	GGL criterion 6.5 from the GGL scheme document GGLS5 is a slightly reworded copy of Dutch sustainability criterion 10.5. The GGL indicators under this criterion are copied from the Dutch verification protocol.  As GGL includes relevant indicators to the GGL criterion, the commission concludes that GGL fully addresses Dutch sustainability criterion 10.5.	3
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**Principle 11: Forest management by a group or regional association offers sufficient safeguards for sustainable forest management**

Sustainability criterion from the Dutch "regeling conformiteitsbeoordeling vaste biomassa voor energiedoeleinden"	ADBE judgement on whether "GGL-Certified biomass" complies with the sustainability criteria	Score
11.1 A group or regional association is led and supervised by an independent legal entity.	GGL criterion 1.1 from Annex B of GGLS5 is a copy of Dutch sustainability criterion 11.1. Three of the four GGL indicators under this criterion are copied from the Dutch verification protocol, indicator 2 out of 4 is added by GGL.  As GGL includes relevant indicators to the GGL criterion, the commission concludes that GGL fully addresses Dutch sustainability criterion 11.1.	3
11.2 A group or regional association meets the requirements of sustainable forest management (requirements 6.1 through 10.5). The separate forest management activities of the individual members of the group or regional association shall also meet these requirements if applicable for the management of the forest concerned.	GGL criterion 2.1 from Annex B of GGLS5 is a copy of Dutch sustainability criterion 11.2. Two of the three GGL indicators under this criterion are copied from the Dutch verification protocol, indicator 2 out of 3 is added by GGL.  In the GGL certification regulation, requirements 3.11.1 - 3.11.7 and 3.7 apply (also) for auditing group members in a GGL group or regional association for which the requirements in GGLS5 Annex B apply. The GGL certification regulation contains (in chapter 2) requirements on how to handle non-conformities and includes (in requirement 3.11.3) specific conditions on how to handle 'group failures' or 'member failures' in case of group certification.  The commission is of opinion that forest management group certification is intended for smallholders. This can be implemented by limiting the size of FMU's that can be part of group certification, or by requiring all FMU's to take part in a sampling scheme where large FMU's (e.g >10.000 ha) are audited individually ("x=y"). The commission has noted that in version 7-5 of the GGL Certification Regulation, GGL follows this intention by requiring that all FMU's larger than 10.000 ha are audited individually (sample size "x = y") at each certification audit. Moreover, for FMU's smaller than 10.000 ha, sample size increases with increasing FMU size classes.  As a result the commission concludes that GGL fully addresses Dutch sustainability criterion 11.2.	3

**Principle 12: A chain of custody system is in place for the biomass, covering the entire chain from the first actor to the energy producer, that links the source to the material used in the product or product group, and provides greenhouse gas emission data of each individual link.**

Sustainability criterion from the Dutch "regeling conformiteitsbeoordeling vaste biomassa voor energiedoeleinden"	ADBE judgement on whether "GGL-Certified biomass" complies with the sustainability criteria	Score
12.1 Each link in the chain of custody bears final responsibility and has a quality management system in place that provides safeguards for	GGLS1, Principle 1, criteria 1.1 to 1.15 contain requirements on a quality management system. These are CoC requirements as is explained in the scope of GGLS1. The commission concludes that the Dutch sustainability criterion	3

	compliance with the requirements of the chain of custody system.	12.1 is fully addressed by certification scheme GGL.	
12.2	Each link in the chain of custody has the relevant greenhouse gas emissions information for its own organisation, which has been obtained using a methodology that is based on the most recent European Commission publication on sustainability criteria for solid biomass and the reference values provided for fossil fuels.	<p>The commission concludes that the first part of Dutch sustainability criterion 12.2 is covered by GGL based on GGLS1 criterion 9.8.</p> <p>The second part of Dutch criterion 12.2 requires that "GHG information has been obtained using a methodology that is based on the most recent European Commission publication on sustainability criteria for solid biomass and the reference values provided for fossil fuels". This part of the Dutch criterion is covered by GGL Instruction document 1a "Greenhouse Gases Calculations" plus the document "Transaction statement guidance v.1-0" which gives guidance to GGL transaction statement v. 1-2.</p> <p>As a result the commission concludes that GGL fully addresses Dutch sustainability criterion 12.2.</p>	3
12.3	Each link in the chain of custody keeps all necessary documentation for demonstrating compliance with the applicable sustainability requirements available for a minimum of 5 years.	Dutch criterion 12.3 is covered by requirement 5.8 from GGLS1 which includes the 5 year term. As this is a GGL CoC requirement it applies to all links in the CoC, the commission concludes that Dutch criterion 12.3 is fully addressed by GGL.	3
12.4	Each link in the chain of custody registers for all incoming or outgoing consignments the quantities and required sustainability information based on the Dutch regulation "conformity assessment sustainability biomass for energy purposes".	<p>As part of its assessment, the commission has looked into what must be understood by "required sustainability information" and concluded that this is the information as listed under points 1. – 8. below (text that is underlined). The commission looked separately at each item:</p> <ol style="list-style-type: none"> <li><u>Biomass category or information allowing to unambiguously determine the biomass category</u> GGL covers this part by requiring (GGLS1 5.6) a categorisation that follows Dutch legislation. Note 1 to GGLS 1 5.6 stipulates that – in case inputs and outputs cannot be correctly identified as meeting any of the categories and corresponding definitions - previous (sub-) supplier(s) shall be contacted and be requested to provide evidence of meeting the above listed categories. The commission understands that this must happen for instance when the endorsed certificate plus accompanying information for forestry biomass does not include information on the size of the FMU, or when it is not clear whether wood chips are sourced from forests or from public green. As a result, the commission concludes that GGL covers this part of criterion 12.4.</li> <li><u>For category 2 biomass: has the sustainability been demonstrated at regional or at forest management level.</u> This is covered by section 2 of the Transaction Statement.</li> <li><u>In case actual values are being used: the GHG emission in g CO<sub>2</sub> equivalent per MJ or ton biomass produced.</u> GGL has two claims: GGL-Certified and GGL-Controlled, and hence the controlled biomass is kept separate on the mass balance as "GGL controlled biomass". This point is covered.</li> <li><u>Country of origin of the feedstock.</u> The commission notices that "country of origin" needs to be filled out on the GGL transaction statement. Through the footnote it becomes clear that this field refers to the origin of the feedstock (and not to the origin of the energy carriers, e.g. wood pellets). The commission concludes that this point is covered by GGL.</li> <li><u>The kind of GHG emission value that is being used: (a) a total default value, (b) an actual value(s), of (c) a combination of disaggregated default values and actual values.</u> The GGL transaction statement (version 1.2) asks the GGL participate to indicate whether GHG values are actual values or (disaggregated) default values. Hence this part of the criterion is covered by GGL.</li> <li><u>In case actual values are being used: the GHG emission in g CO<sub>2</sub> equivalent per MJ or ton biomass produced.</u> The GGL transaction statement (version 1.2) requires the GGL participate to fill out the "the correct calculated total emissions from the use of the fuel (E) ..[.].". GGL requires to follow the EU methodology and requires the value to be reported in the correct unit, so this part of the criterion is covered.</li> </ol>	3

		<p>7. <u>The certification scheme (plus any additional verification statement(s)) which are used to demonstrate compliance with the sustainability criteria under principles P2-P11.</u> This is not yet included in GGL, as information on the scheme used to show compliance with the sustainability criteria under principles P2-P11 needs to be more detailed as compared to the "GGL endorsed schemes". However, in this document it is stated that the current endorsements "are valid until the transfer period end in the Netherlands for sustainable biomass (SDE+) and the RVO has published an overview of approved certification schemes and this document will be updated accordingly". As a result, the commission concludes that this part of the criterion is covered.</p> <p>8. <u>The certification scheme (plus any additional verification statement(s)) which are used to demonstrate compliance with the CoC criteria under principles P12-P13.</u> This is included, as the transaction statement is a GGL statement.</p> <p>The commission therefore concludes that GGL fully addresses Dutch criterion 12.4.</p>	
12.5	<p>Each link in the chain of custody applies a mass balance in case of mixing or splitting of materials with different sustainability characteristics. For the mixing the following applies:</p> <ul style="list-style-type: none"> <li>- The method shall be applied at least at the level of a location;</li> <li>- The organisation defines a period with a maximum of a year, during which incoming and outgoing consignments are measured and reports the results;</li> <li>- All sustainability characteristics of mixed biomass output can be traced back to the characteristics and quantities of the incoming consignments, taking account of the applicable conversion factors.</li> </ul>	<p>The Dutch criterion 12.5 consists of 4 parts plus an additional requirement to be checked.</p> <ol style="list-style-type: none"> <li>1. The first part (when mixing, a mass balance must be used) is addressed by GGL standard 1 criterion 7.9. A volume credit system is a term for a mass balance system as also used in other certification schemes like PEFC and SFI – see <a href="https://www.pefc.org/standards/chain-of-custody">https://www.pefc.org/standards/chain-of-custody</a>;</li> <li>2. The second part ("up to the level of a location") is met by GGL standard 1 criterion 7.9;</li> <li>3. The third part (definition of a period of max. one year) is met by GGL standard 1 criterion 7.4;</li> <li>4. The fourth part (tracing outputs back to inputs, taking account of conversion factors) is met by GGL standard 1 criterion 7.4;</li> </ol> <p>Additional requirement (yearly auditing of mass balance) is met by GGL standard 1, criterion 7.10.</p> <p>As a result, the commission concludes that GGL fully addresses Dutch sustainability criterion 12.5.</p>	3
12.6	<p>When being mixed with other consignments category 1 and 2 consignments only complying with the requirements 1.1, 3.1, 3.2, 3.3, 4.1, 4.2, 4.3, 5, 7.1 and 7.3 are distinguished as controlled biomass on a mass balance. For controlled biomass, the biomass producer is the first link in the chain of custody and the source is the forest management unit or a defined supply area.</p>	<p>Dutch sustainability criterion 12.6 includes a definition for controlled biomass: category 1 and 2 consignments complying with the requirements 1.1, 3.1, 3.2, 3.3, 4.1, 4.2, 4.3, 5, 7.1 and 7.3. Please note that the commission has assessed elsewhere (paragraph 4.4) whether the claim "GGL-Controlled" demonstrates compliance to these requirements.</p> <p>Dutch sustainability criterion 12.6 includes three requirements:</p> <ol style="list-style-type: none"> <li>1. <u>when being mixed with other consignments, consignments are distinguished as controlled biomass on a mass balance.</u> The GGL certification scheme requires that GGL-certified and GGL-controlled input and output material is administrated separately, see for instance requirements GGLS1 4.4 – 4.8. As a result, the commission concludes that GGL covers the first part of criterion 12.6</li> <li>2. <u>For controlled biomass, the biomass producer is the first link in the chain of custody.</u> GGL certification starts at the biomass producer, so this part of the criterion is covered by GGL.</li> <li>3. <u>For controlled biomass, the source is the forest management unit or a defined supply area.</u> Within GGL, biomass is supplied either through FSC or PEFC (endorsed) forestry certification schemes which source biomass from FMU's, or through assessment of the relevant GGLS5 requirements. From the scope of GGLS5 it is clear that the material is sourced from FMU's. As a result, the commission concludes that GGL also covers this part of the criterion.</li> </ol> <p>The commission concludes that GGL fully addresses Dutch sustainability criterion 12.6.</p>	3

#### 4.4 Assessment on whether the GGL certification scheme demonstrates that biomass is controlled biomass

The minister of EZK can approve certification schemes also for being able to demonstrate that biomass is controlled biomass. Controlled biomass – in the Dutch system of sustainability of solid biomass for energy applications – is biomass that meets sustainability criteria 1.1, 3.1, 3.2, 3.3, 4.1, 4.2, 4.3, 5, 7.1, 7.3.

Demonstrating that biomass is controlled biomass is different from demonstrating that controlled biomass is adequately dealt with in the Chain-of-Custody (this is part of sustainability criterion 12.6). There are some certification schemes that have separate scheme documents with separate requirements for controlled feedstock. In that case the commission will assess whether certification against these separate documents demonstrates compliance to the above-mentioned sustainability criteria.

The GGL certification scheme does not contain a separate scheme document for controlled feedstock. Under the GGL scheme controlled biomass must be kept separate on the mass balance (see the assessment under Dutch sustainability criterion 12.6) and the GGL scheme allows to use “endorsed forest management controlled certification systems”. The commission has no opinion on the use of these endorsed scheme other than it acknowledges that – by doing so – GGL can bring forward through the CoC information on the fact that the GGL endorsed forest management controlled certification system scheme (FSC or PEFC) was used and that information on this use was received by the owner of the pellet mill. To be fully clear on this: by doing so, the conclusion that the biomass is “controlled biomass” is demonstrated by the other (FSC, PEFC) scheme, not by GGL. Whether or not this proof is accepted in The Netherlands will depend on whether the GGL endorsed scheme is approved for demonstrating that biomass is controlled biomass by the Dutch Minister of EZK.

In addition to accepting the endorsed schemes, GGL requires (second part of requirement 4.5 from GGLS1) that *“controlled raw materials shall also comply with criteria 1.14 of this standard and principle 7, principle 8, principle 9, criteria 2.1 and criteria 2.3 of GGLS5. A Raw Material Statement shall be signed by the supplier(s)”*. Criteria 1.14 of GGLS1 is on legality. The GGL principles 7, 8 and 9, plus criteria 2.1 and 2.3 of GGLS5 demonstrate compliance to the Dutch sustainability criteria 3.1, 3.2, 3.3, 4.1, 4.2, 4.3 and 5.1, 7.1 and 7.3 (see paragraph 4.3 for more details). As a result, the commission concludes that for controlled biomass the GGL scheme can be approved for these criteria. This approval is based on the above-mentioned requirement, not on the endorsed schemes (as the status of FSC and PEFC will change per 1-1-2020) and hence the commission advises to approve GGL for these criteria for controlled biomass under the condition that an auditor has confirmed compliance to GGLS5 principles 7, 8 and 9, plus GGLS5 criteria 2.1 and 2.3.

## 4.5 Assessment of the Risk based approach

The advisory commission has assessed whether the risk based approach (RBA) of certification scheme GGL addresses the requirements from chapter 8 of the Dutch verification protocol. The assessment results are given in the table below.

Requirement on the RBA from chapter 8 of the Dutch "verification control"	ADBE judgement on whether GGL complies with the RBA requirement	Score
<p>R8.1 <b>Determination of region (s)</b></p> <ul style="list-style-type: none"> <li>* The biomass producer shall identify one or more homogeneous areas (regions) to source biomass from.</li> <li>* Areas can be determined both on a geographical scale (e.g. states, counties, province) and on a functional scale (forest type, ownership, scope of management, type/quality of forest). In any case, the SFM requirements in Chapter 6 play a key role in determining the homogeneity of a region.</li> <li>* The boundaries of a region shall be clearly identified on maps and in other relevant documentation. Boundaries may be described as a reference to the existing administrative or environmental divisions whilst functional scale can refer to characteristics that determine the functional scale, e.g. plantations vs. natural forests.</li> </ul>	<p>The two requirements in GGLS5 Appendix A with number 2.1 contain reworded copies of requirements from section 8.1 in the Dutch verification protocol.</p> <p>The commission concludes that GGL largely addresses this part of the Risk based approach.</p>	2
<p>R8.2 <b>Gathering information</b></p> <p>The biomass producer shall gather information on identified areas that is relevant for a risk analysis with respect to the SFM requirements.</p>	<p>As GGL has copied all relevant parts on gathering of information from the Dutch verification protocol, the commission concludes that GGL largely addresses this part of the Dutch risk based approach.</p>	2
<p>R8.3 <b>Risk Assessment</b></p> <p>(including detailed requirements under 8.3.1 and 8.3.2)</p>	<p>As GGL has copied all relevant parts on risk assessment from the Dutch verification protocol, the commission concludes that GGL largely addresses this part of the Dutch risk based approach.</p>	2
<p>R8.4 <b>Risk mitigation and measures</b></p> <ul style="list-style-type: none"> <li>* For a region with SFM criteria designated as 'specified risk', mitigating measures must be defined in order to reduce the risk level to 'low risk'.</li> <li>* Mitigation measures can comprise additional information gathering (e.g. through on-site verification by the biomass producer), reduction of the region size by excluding risk areas, or other appropriate measures.</li> <li>* In the event that the risk of non-compliance for one or more SFM criteria remains a 'specified risk', then biomass from that region cannot be classified as sustainable.</li> </ul>	<p>The requirements in GGLS5 Appendix A with numbers 5.7, 5.8 and 5.9 contain reworded copies of requirements from section 8.4 in the Dutch verification protocol.</p> <p>The commission concludes that GGL largely addresses this part of the Risk based approach.</p>	2
<p>R8.5 <b>Regular monitoring of the risk assessment</b></p> <ul style="list-style-type: none"> <li>* The biomass producer shall conduct a review of the risk assessment and the mitigating measures at least once per year and in the event of relevant developments in the region sustainable biomass is sourced from and/or relevant changes in the information gathered for a region or criterion.</li> </ul>	<p>The requirements in GGLS5 Appendix A with number 6.1 contains a reworded copy of the requirements from section 8.5 in the Dutch verification protocol.</p> <p>The commission concludes that GGL largely addresses this part of the Risk based approach.</p>	2

## 5 Documents used for the assessment of certification scheme GGL

### 5.1 Documents submitted by the scheme manager as part of the request for approval

1. [GGLS1 - COC criteria](#) v3-1
2. [GGLS1 annex - List of Prohibited Materials](#) v1-0
3. [GGLS2 - Agricultural Source Criteria](#) v2-3
4. [GGLS4 - Transaction and Product Certificate](#) v2-2
5. [GGLS5 - Forest Management Criteria](#) v2-3
6. [Announcement 23-2-19](#)
7. [GGL 1a. Instruction doc. GHG Calculations](#) v2-2
8. [GGL 1b. Raw Materials Statement v2-4](#) – template
9. [GGL 1c. Endorsed schemes](#) v1-1
10. [GGL 4a. Transaction statement v1-3](#) – template
11. [GGL 4b. Transaction statement guidance](#) v1-0
12. [GGL Certification Regulation](#) v7-3
13. [GGL Glossary](#) v2-5

### 5.2 Documents submitted by the scheme manager during the assessment procedure

14. [GGLS5 - Forest Management Criteria](#) v2-4
15. [GGL Certification Regulation](#) v7-5
16. [GGL Glossary](#) v2-6

### 5.3 Additional documents assessed by the commission

17. GGL website, pages “[Documents](#)”, “[Certification register](#)”, “[About GGL](#)” and “[Standard consultation announcement](#)” (accessed on Dec. 7, 2018 and on June 13, 2019).

## Annex I – Biomass categories and the CoC system

The sustainability and management criteria in paragraphs 4.2 and 4.3 are a translation from the criteria in Annexes B and C of the Dutch regulation on conformity assessment of solid biomass for energy production. In Annex D of this regulation two tables show which requirements apply to the five categories and the set-up of the chain of custody. In the explanatory notes to the legislation a table can be found with additional guidance to the requirements.

### **Biomass categories and the chain of custody system**

There are five biomass categories for which the sustainability requirements apply. In Table 1 for each category is listed which sustainability requirements apply:

*Table 1. Biomass category's with the applicable sustainability requirements*

<b>Category</b>	<b>Sustainability requirements</b>	Greenhouse gas emission	Soil management	Carbon and land use change	Sustainable forest management	Chain of custody
1. Woody biomass from forest management units		1.1		3.1-3.3, 4.1-4.3, 5.1	6.1-6.3, 7.1-7.5, 8.1-8.8, 9.1-9.2, 10.1-10.5, 11.1-11.2	12.1-12.6, 13.1-13.3
2. Woody biomass from forest management units less than 500 ha		1.1		3.1-3.3, 4.1-4.3	6.1-6.3, 7.1-7.5, 8.1-8.8, 9.1-9.2, 10.1-10.5, 11.1-11.2	12.1-12.6, 13.1-13.3
3. Residues from nature and landscape management		1.1	2.1			12.1-12.6, 13.1-13.3
4. Agricultural residues		1.1	2.1			12.1-12.6, 13.1-13.3
5. Biogenic residues and waste		1.1				12.1-12.6, 13.1-13.3

The source of the five categories and controlled biomass has to be known for each consignment. The conformity assessment by a conformity assessment body starts at the first link of the chain of custody. In Table 2 for each category the source of the material and the first link of the chain of custody are listed.

*Table 2. Distinction between the source and the first link in the chain of custody per biomass category*

<b>Category</b>	<b>Source</b>	<b>First link chain of custody</b>
1. Woody biomass from forest management units	Forest management unit	Forest management unit
2. Woody biomass from forest management units less than 500 ha	Forest management unit or predefined supply base of which the forest management unit <500 ha forms a part	Forest management unit or biomass producer
3. Residues from nature and landscape management	Predefined supply base	First collection point
4. Agricultural residues	Predefined supply base	First collection point
5. Biogenic residues and waste	Company that generates the residues or waste	First collection point

As part of the SDE+ subsidy scheme a temporary exemption applies for category 2 biomass regarding the first link of the chain of custody. For this category either the forest management unit or the biomass producer can be the first link. In case the biomass producer is the first link a risk based approach is used to demonstrate compliance with the sustainable forest management requirements.



## Annex II – Abbreviations

ADBE	Advisory commission Sustainability Biomass for Energy applications
CoC	Chain-of-Custody
EU	European Union
EZK	“Ministry of EZK” is the Dutch Minister of Economic Affairs and Climate Policy
FMU	Forest Management Unit
FSC	Forest Stewardship Council
GGL	Green Gold Label
GHG	GreenHouse Gas
ILUC	Indirect Land Use Change
LIIB	Low Indirect Impact Biofuels
PEFC	Programme for the Endorsement of Forest Certification
RBA	Risk Based Approach
SDE+	A Dutch subsidy scheme (feed-in tariff) for production of renewable energy
SFI	Sustainable Forestry Initiative
SFM	Sustainable Forest Management