

Public report
on the assessment of
certification scheme Better Biomass
(request for advice from April 2018)

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 “Better Biomass certified”). The ADBE will advise which Dutch sustainability criteria are covered by the 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 Better Biomass 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 Better Biomass. In chapter 4, details on the commission’s judgement are given, and chapter 5 lists the documents 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 Better Biomass

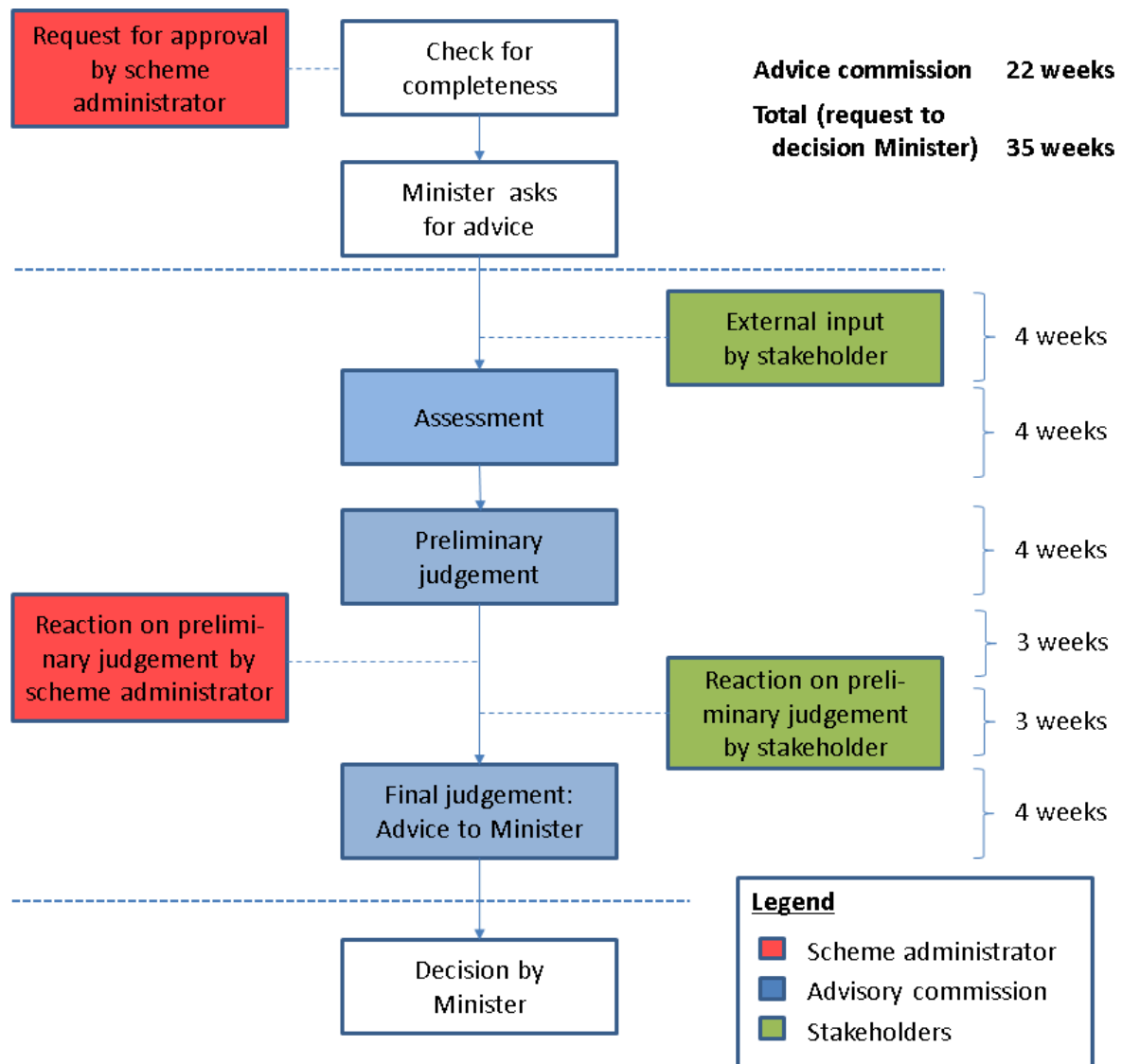
2.1 Assessment protocol

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 certification scheme Better Biomass is assessed using version 2.1 of the assessment protocol.

2.2 Summary of the assessment procedure

Schematically the procedure is visualised in the figure below.



2.3 Application by Better Biomass

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

- the Dutch sustainability criteria under Principles P1 - P13, criterion 12.6 excepted;
- biomass categories 1, 2, 3, 4 and 5; and
- geographical coverage “Global”.

In the application form, the Better Biomass scheme manager indicated that the Better Biomass chain of custody requirements do not include controlled biomass.

The Better Biomass certification scheme can result in two claims or “certification levels” (this is the term used in the Better Biomass scheme document): “Better Biomass certified” and “NTA RED certified”. In this report, only the “Better Biomass certified” claim will be assessed, as the “NTA RED certified” claim is used for liquid and gaseous biofuels. The ADBE only prepares an advice on solid biomass.

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

- NTA 8080-1:2015, Sustainably produced biomass for bioenergy and bio-based products - Part 1: Sustainability requirements
- NTA 8080-2:2015, Sustainably produced biomass for bioenergy and bio-based products - Part 2: Chain-of-custody requirements
- Better Biomass certification scheme (NCS 8080:2018-08)
- Better Biomass Interpretation Document No 2.1 (2018-09)
- NEN Scheme management manual – Version 5 (2018)
- NEN By-laws & Rules of Procedure (February 2014)

2.4 Timeline of the Better Biomass assessment

The commission received a request for advice from the Minister of EZK on the Better Biomass application on April 9, 2018. This was the second request for advice which the commission received on Better Biomass; the first request for advice from August 2017 did not result in an advice as the Better Biomass scheme manager has withdrawn this first request for approval in March 2018. The commission completed its preliminary judgement on the April 2018 request for advice early June 2018. This preliminary judgement was sent for comments to the scheme manager by mid-June. On August 22, the assessment procedure was temporarily stopped as the Better Biomass scheme manager sent in new versions of the Better Biomass certification scheme, the Better Biomass interpretation document No 2 (both replacing final draft versions that had not yet been published) and a new version of the NEN scheme management manual. The stopping of the assessment procedure was publicly announced in an ADBE news message.

The commission concluded on September 5th that the changes which were made in the scheme documents were relatively small and that the assessment procedure would be continued at the step “Final judgement/advice” (see figure in paragraph 2.2). This was publicly announced in an ADBE news message. The commission discussed the judgement on Sept. 5th and came to two additional questions, to which the Better Biomass scheme manager replied on Sept. 27th.

Also on Sept. 27th, the Better Biomass scheme manager sent in the Better Biomass Interpretation Document no. 2.1 in which the definition for endangered plant and animal species was corrected (in the former version an incorrect definition was included which had been copied from an incorrect definition in a draft ADBE document). The commission concluded this to be a small change and, after stopping the procedure temporarily, communicated this on its website and via a news message on October 1st, 2018.

On October 11, 2018 the commission came to its final judgement, which is described in this report. The advice which the commission has sent on October 12, 2018 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 the certification scheme Better Biomass no external input was received.

3 Summary of findings on certification scheme Better Biomass

A summary of the commission’s findings on the application for approval by the certification scheme Better Biomass is given in the three paragraphs of this chapter 3. Further details on the commission’s findings are given in chapter 4 “Full assessment tables for certification scheme Better Biomass”. The sustainability and management criteria referred to by the numbers in this chapter and listed in chapter 4 are copied from the Dutch legal regulation (the *regeling conformiteitsbeoordeling vaste biomassa voor energietoepassingen*), effective as from 1 January 2018.

The commission’s final judgement, based on the combined findings as described below, is that Better Biomass can be approved for sustainability criteria 2.1, 3.1 – 3.3, 4.1 – 4.3, 5.1*, 6.1 - 6.3, 7.1, 7.3 - 7.5, 8.1 - 8.8, 9.1 – 9.2, 10.1 – 10.5, 11.1 – 11.2, 12.1 – 12.5, 13.1 – 13.3 for biomass categories 1, 2, 3, 4 and 5.

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

Better Biomass requested approval for biomass categories 1, 2, 3, 4 and 5 and for all sustainability criteria except for criterion 12.6. The commission concludes that Better Biomass has included the categorisation according to the five biomass categories in Annex D.4 of the normative Interpretation document number No. 2.1. Better Biomass requires that for every individual consignment of biomass the transaction certificate contains a product description including the biomass category, and hence commission concludes that Better Biomass can be approved for biomass categories 1, 2, 3, 4 and 5.

Better Biomass did not apply for approval for the “regional risk based approach” for biomass category 2, so this was not assessed by the ADBE.

3.2 Findings for management criteria

A certification scheme can only be approved if the scheme complies with all management criteria. The ADBE concludes that Better Biomass complies with all management criteria. The table in paragraph 4.2 gives further details.

3.3 Findings for individual sustainability criteria

The minister of EZK will approve certification schemes per claim and per individual sustainability criterion from the Dutch legal regulation. Therefore in the table below the findings of the advisory commission are summarised per individual sustainability criterion for the claim “Better Biomass certified”. The commission did not assess the claim “NTA RED certified” as this claim concerns biofuels for transport.

The table below 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 will give a positive advice to the Minister of EZK.

Better Biomass did not request approval for sustainability criterion 12.6 on controlled biomass. In addition the commission concluded that Better Biomass also does not include a requirement to distinguish controlled biomass in the chain-of-custody, which might become a future point of attention when Better Biomass decides to recognise other certificates from other certification schemes that include controlled biomass.

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: Biodiversity								
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

** : Compliance with criterion 5.1 is based on a voluntary Better Biomass requirement to demonstrate ILUC-low risk. The commission is of the opinion that Better Biomass fully addresses Dutch sustainability criterion 5.1 under the condition that the voluntary module is applied and the addition “ILUC-low risk” is made to the transaction documents which are passed on through the chain-of-custody. The auditor of the Dutch end user shall check and confirm that this evidence is available. If this statement is not present in the transaction documents, then the auditor shall not approve the biomass for compliance with Dutch sustainability criterion 5.1.

Legend (scoring table)

Colour	Score	Meaning
Dark green :	3	The sustainability criterion is fully addressed by Better Biomass.
Light green :	2	The sustainability criterion is largely addressed the Better Biomass. Supplementary verification or another approved certification scheme is not needed.
Orange :	1	The sustainability criterion is partly addressed by Better Biomass. 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 Better Biomass. Additional verification or another approved certification scheme is required for the entire sustainability criterion.
Grey :		No request for approval.

4 Assessment tables for certification scheme Better Biomass

This chapter contains three paragraphs on respectively a number of general topics of the Better Biomass application (4.1), on the management criteria (4.2), and on the sustainability criteria for the claim “Better Biomass certified” (4.3). The scores “3”, “2”, “1” and “0” plus the colours that are used in the tables in this chapter, are explained in the legend on the previous page.

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 Better Biomass meets these requirements. One important aspect is whether Better Biomass can make a distinction between the five biomass categories.

To the opinion of the ADBE the information on the certificates following Annex D of NTA 8080-1:2015 is not sufficient to unambiguously determine the biomass category. Some raw materials as specified in Annex D do not clearly fall in a specific biomass category. This point of attention has been solved by the interpretation on this Table D in Interpretation document No 2.1 (version September 2018). As a result the commission concludes that throughout the Better Biomass CoC it is clear to which biomass category belongs each individual batch/consignment of biomass.

For biomass categories 1 and 2 the Better Biomass certification starts at the biomass producer (e.g. farmers, foresters), for biomass categories 3, 4 and 5 the certification starts at the producer receiving biomass material from collectors, which is in line with the condition on the first link in the Chain-of-Custody (CoC) from Table 2 in Annex D of the Dutch regulation.

4.2 Assessment table for management criteria

The table below contains details of the assessment of the advisory commission on the Better Biomass certification scheme against the Dutch management criteria from the “regeling conformiteitsbeoordeling vaste biomassa voor energiedoeleinden”.

Management criterion from the Dutch “regeling conformiteitsbeoordeling vaste biomassa voor energiedoeleinden”		ADBE judgement on whether Better Biomass complies with the management criteria	Score
1	A widely supported need exists for the scheme and for the conformity assessments that are performed based on the scheme.	The Better Biomass scheme including the NTA8080-2015 documents were developed with the participation of a large group of stakeholders including companies, scientists and NGO’s. The certification scheme is operational since 2011 and has issued over 100 certificates in The Netherlands plus certificates in a number of North- and Northwest European countries. As a result, the commission concludes that this criterion is fully addressed by Better Biomass.	3
2	The development of the scheme is transparent and participation in the process of development of the scheme is open to anyone.	Better Biomass scheme development procedures are well explained in the “NEN Scheme management manual”. Participation to the development of the scheme is open to relevant stakeholder groups. Previously, there used to be costs for participation in the form of a participatory fee, since 2018 participation in the Better Biomass scheme	2

		<p>management committee doesn't require a participation fee anymore.</p> <p>Paragraph 3.3.5 of the NEN scheme management manual applies to changes in NEN certification schemes including Better Biomass.</p> <p>The commission is of the opinion that participation in the process of making changes to the scheme is limited as the "Commissie Schemabeheer" currently consists of only 5 members and as participation in a commission is – to the opinion of the commission – less "open to anyone" than participation through a public consultation. Moreover preparing changes to scheme documents in such a commission is (in case stakeholders are informed on the changes only after the commission has completed this preparation) less transparent in comparison to open consultation. Therefore the commission concludes that Dutch management criterion 2 is largely addressed by Better Biomass.</p>	
3	The methods related to the development of the scheme are documented and at least include the organisations participating in the development of the scheme and the decision-making process for the development of the scheme.	<p>NEN Scheme management manual section 3 is a general description of how a NEN scheme is to be developed and managed. The participating organizations are listed in the foreword of NTA 8080-1:2015 and in the foreword of NTA 8080-2:2015. NEN Scheme management manual 3.1.3 gives details on the decision making process (on whether or not the scheme is to be developed).</p> <p>The commission concludes that Better Biomass fully addresses Dutch management criterion 3.</p>	3
4	It can be demonstrated that during the development of the scheme and as part of the scheme management expertise of the sustainability requirements covered by the scheme is applied.	<p>The procedures from NEN and the Dutch Raad voor Accreditatie (Accreditation Council) require that competent persons develop the scheme. The commission has received the composition of the committee of experts (as mentioned in paragraph 4.1 of NCS 8080:2018-08). The commission concludes that expertise was involved but notes that in practice the involved expertise in forest management was limited to one person from this sector. The commission concludes that Dutch management criterion 4 is largely addressed by Better Biomass.</p>	2
5	The scheme is publicly available or accessible under fair, reasonable and non-discriminatory conditions.	<p>The Better Biomass certification documents are publicly available under non-discriminatory conditions through www.betterbiomass.org. They are however not for free (more than 80 Euro for NTA8080-1, and more than 60 Euro for the Chain of custody document NTA8080-2).</p> <p>The commission considers that the price asked for the standards may be fair, however, it can be a barrier, especially for less wealthy participants (e.g. in low-income countries) or stakeholders, considering that individual parties involved in the chain have to buy the documents.</p> <p>As the scheme is publically available under reasonably fair, and non-discriminatory conditions, the commission concludes that management criterion 5 is thus largely addressed by Better Biomass.</p>	2
6	The scheme manager limits the use of the scheme to the conformity assessment bodies he has entered into an agreement with, unless the scheme owner itself is the only conformity assessment body.	<p>The owner of the Better Biomass certification scheme, NEN, requires certification bodies which want to use the Better Biomass certification scheme to enter into an agreement with NEN. This can be concluded from NCS 8080:2018-08 4.1 and 5.1 and from NEN scheme management 3.3.2. The commission concludes that this management criterion is thus fully addressed by Better Biomass.</p>	3
7	The scheme manager has enforced effective procedures for handling complaints and appeal. Appeal is treated by persons that are not directly involved in the development and the management of the document.	<p>NEN has a complaint and appeal procedure, allowing to appeal against all decisions made by NEN scheme management in response to complaints and objections and all decisions on the part of the Scheme Management Committee (NEN Scheme management, 4.2.2). According to NEN Scheme management, 4.2.4, an independent arbitration committee is established to handle the appeals procedure. As a result, the commission concludes that Dutch management criterion 7 is thus fully addressed by Better Biomass.</p>	3
8	The scheme manager has a scheme version management system in place.	<p>NEN uses a documentation system for managing its standards and certification schemes and applies year and, if relevant, month of publication to indicate the version. The commission therefore concludes that Dutch management criterion 8 is fully addressed by Better Biomass.</p>	3

4.3 Assessment tables on sustainability criteria for the claim “Better Biomass certified”

The advisory commission has assessed whether the certification scheme Better Biomass and its claim “Better Biomass certified” addresses the Dutch sustainability criteria from the Dutch “regeling conformiteitsbeoordeling vaste biomassa voor energiedoeleinden”. The assessment results are given in the tables below.

Two general comments		
0.1	Requirements versus criteria and indicators	A number of other certification schemes have – under each principle – criteria plus underlying indicators. The indicators are often performance based, allowing an auditor to actually check whether the criterion is met. Better Biomass contains requirements at the level of criteria, without clear indicators. To the opinion of the commission this makes the on-the-ground use of the Better Biomass certification scheme more difficult as compared to other schemes which do include clear indicators. In case Better Biomass includes exact copies of the Dutch criteria without additional indicators, the commission is of opinion that the maximum score can be “largely addressed”.
0.2	NTA8080 recognising other standards	A valid NTA 8080 certificate or equivalent means that also certificates from other standards could be recognized. From correspondence with the scheme manager, the ADBE understands that (a) Better Biomass has currently not yet identified any other scheme to be “equivalent” and (b) when in future another scheme will be considered “equivalent” by Better Biomass this shall be implemented by changing the scheme (the NTA8080, NCS and/or interpretation documents) causing that RVO will have to assess whether the changes can be accepted. This note will be included in the advice of the ADBE to the Minister of EZK.

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 Better Biomass complies with the sustainability criteria	Score
1.1a	The reduction in CO ₂ -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 ₂ -eq/MJ for electricity and 24 g CO ₂ -eq/MJ for heat.	Part of the sustainability criterion 1.1 cannot be complied with through means of certification. Certification is based on an a priori comparison of a requirement versus management documents, a forestry management plan, a mass balance system etc. The result of GHG calculations, as expressed in gram CO ₂ -eq per MJ of electricity or heat, depends on the GHG intensity of the biomass provided plus the conversion efficiency and emissions in the conversion unit. As most conversion plants will use biomass from more than one source (and hence with different GHG intensity), the 70% annual average emission reduction can only be calculated afterwards when – looking back at the year – the annual input of different biomasses with different GHG intensity is known. Therefore, the 70% average GHG emission reduction must be demonstrated via verification. The 60% reduction per consignment can be met by certification. Hence the score can at best be “1” – additional verification is required for the 70% annual average emission reduction. Better Biomass requires in NTA 8080-1:2015 6.2.1.1 that “If biomass is used for bioenergy, a net emission saving of greenhouse gases shall take place in the whole chain, from cultivation to end-use” and “Maximum emissions of greenhouse gases [CO ₂ eq/MJ]: Solid or gaseous biomass 74,4 g for electricity, 32,0 g for heating and 18,8 g for cooling [Note e]”. Better Biomass also requires, in NTA 8080-1:2015, C.3.5, that “The organization shall calculate the emission factors according to COM(2010)11, Annex I, and SWD(2014)259”. As a result, the commission concludes that Better Biomass covers the second part of Dutch criterion 1.1, and therefore Dutch criterion 1.1 is partly addressed by Better Biomass.	1
1.1b	No consignment of biomass shall result in emissions above 74 g CO ₂ -eq/MJ for electricity and 32 g CO ₂ -eq/MJ for heat. The calculated maximum CO ₂ -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.		

Principle 2: Soil quality shall be maintained and where possible improved			
Sustainability criterion from the Dutch "regeling conformiteitsbeoordeling vaste biomassa voor energiedoeleinden"		ADBE judgement on whether Better Biomass complies with the sustainability criteria	Score
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.	Soil quality is covered in Better Biomass by NTA8080-1:2015 criteria 6.5.1.1 and 6.5.1.2. Improvement is mentioned in the criteria – indicating best practices (although the word "best practices" is not used). There is a reference to methods as intercropping for agriculture. The commission concludes that all ingredients of soil quality are included. Through Interpretation document no 2.1 6.5.1.1, reference is made to management objectives and a management plan in NTA 8080-1:2015. The commission concludes that sustainability criterion 2.1 is fully addressed by NTA 8080-1:2015 requirement 6.5.1.1.	3

Principle 3: Production of raw biomass does not result in the destruction of carbon sinks			
Sustainability criterion from the Dutch "regeling conformiteitsbeoordeling vaste biomassa voor energiedoeleinden"		ADBE judgement on whether Better Biomass complies with the sustainability criteria	Score
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.	The commission concludes that Better Biomass fully addresses Dutch sustainability criterion 3.1 through NTA 8080-1:2015 6.2.2.1 plus Interpretation document 2.1, 6.2.2.	3
3.2	Biomass is not sourced from land that was converted from wetland to an alternative, dryer ecosystem after 1 January 2008.	The commission concludes that Better Biomass fully addresses Dutch sustainability criterion 3.2 through NTA 8080-1:2015 6.2.2.1.	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 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.	Better Biomass NTA8080-1:2015 6.4.1.4 contains a similar requirement as the Dutch criterion, forbidding conversion of natural forests as from 1 January 1997. Definitions of natural forest and wood plantations are missing in the NTA8080-1:2015 document but are added in the normative Interpretation document no 2.1. As a result, the commission concludes that Dutch sustainability criterion 3.3 is fully addressed by Better Biomass.	3

Principle 4: The use of biomass does not result in a long-term carbon debt			
Sustainability criterion from the Dutch "regeling conformiteitsbeoordeling vaste biomassa voor energiedoelinden"		ADBE judgement on whether Better Biomass complies with the sustainability criteria	Score
4.1	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.	Better Biomass requirement 6.2.2.4 contains the same requirements as Dutch criterion 4.1. There is a small difference in wording: "long-term" (NTA8080) versus "medium to long-term" (Dutch criteria). The commission concludes that Dutch sustainability criterion 4.1 is fully addressed by Better Biomass.	3
4.2	Biomass is not sourced from stumps unless these stumps had to be removed from the site for other reasons than wood or biomass production.	Better Biomass NTA8080-1:2015 requirement 6.2.2.3 refers to not using stumps, whereas in Annex D (normative), the same document contains a distinction between two types of stumps: <ul style="list-style-type: none"> - Table D.1 with a list of primary residual flows which contains, under heading "other fresh wood", the demarcation "stumps that are not originating from conversions on behalf of changes to functions for which permits have been granted." - Table D.2 with a list of non-primary residual flows which contains, under the heading "other fresh wood", the demarcation "stumps originating from conversions on behalf of changes to functions for which permits have been granted". This distinction is in line with the Dutch criterion as the first category (Table D.1) cannot be used as solid biomass according to NTA8080-1:2015 6.2.2.3, whereas the second category (Table D.2) can be used. As a result, the commission concludes that Better Biomass fully addresses Dutch sustainability criterion 4.2.	3
4.3	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.	Better Biomass NTA8080-1:2015 6.2.2.3 requires that "Regarding solid biomass additionally the following types of biomass shall not be used from the viewpoint of carbon debt: ..[..].. round timber from sustainably managed forests with a rotation period of more than 40 years, if on average more than 50 % of the timber harvest (excluding thinnings) is processed into wood pellets for bioenergy. Interpretation document no 2.1 makes an addition to this requirement: "Round timber shall neither be processed into other woody materials for bioenergy". As a result, the commission concludes that Better Biomass fully addresses Dutch sustainability criterion 4.3.	3

Principle 5: Biomass production does not result in Indirect Land Use Change (ILUC)			
Sustainability criterion from the Dutch "regeling conformiteitsbeoordeling vaste biomassa voor energiedoelinden"		ADBE judgement on whether Better Biomass complies with the sustainability criteria	Score
5.1	Biomass sourced from bioenergy plantation systems that were planted after 1 January 2008 has a demonstrably low ILUC risk. Biomass from forest management units smaller than 500 hectares is exempt from this requirement.	In Interpretation document No 2.1, NTA 8080-1:2015, 6.3.3 it is stated that the organization can voluntarily opt or may be required to market its biomass as 'ILUC low risk'. In case it does, the organization that produces this biomass shall comply with the requirements of NTA 8080-1:2015, 6.3.3. The commission is of the opinion that Better Biomass fully addresses Dutch sustainability criterion 5.1 under the condition (this is the reason for the "***" added to the score) that the addition "ILUC-low risk" is made to the transaction documents which are passed on through the chain-of-custody. The auditor of the Dutch end user shall check and confirm that this evidence is available. If this statement is not present in the transaction documents, then the auditor shall not approve the biomass for compliance with Dutch sustainability criterion 5.1.	3**

Principle 6: Relevant international, national, regional and local laws and regulations are complied with			
Sustainability criterion from the Dutch "regeling conformiteitsbeoordeling vaste biomassa voor energiedoelinden"		ADBE judgement on whether Better Biomass complies with the sustainability criteria	Score
6.1	The forest manager holds the legal right to use the forest.	From the NTA8080-1 requirement 6.7.4.2 point a) it follows that the organisation shall accurately demonstrate – that it possesses [= interpretation by commission on how the Better Biomass requirement should be read] – the long-term use rights of the land. "The organization" refers in this case to the biomass producer – and not specifically to the forest manager, which is a small difference. The commission investigated the implications of this difference and comes to the conclusion that the Better Biomass requirements are equivalent to the Dutch criterion, as the Better Biomass "producer" includes the "forest manager" from Dutch criterion 6.1 and as it must possess the long-term use rights of the land. Therefore the commission concludes that Dutch sustainability criterion 6.1 is fully addressed by Better Biomass.	3
6.2	The forest manager complies with all obligations to pay taxes and royalties.	The Better Biomass requirement from NTA 8080-1:2015 5.6.1 is of relevance for this criterion. The commission is of opinion that if someone is "acquainted with laws and regulations..." and someone has "considered laws and regulations related to reimbursements, royalties, taxes etc." this does not automatically imply that this person has paid his or her taxes. Interpretation document No. 2.1 makes relevant additions, through which the certificate holder must demonstrate both to be acquainted with, as well as being in compliance with legislation and regulations. As Better Biomass is a global certification scheme, the commission is not certain that in all countries worldwide paying taxes and royalties is always the direct result of legislative obligations. However, as the risk is small that biomass used in the Netherlands is sourced from countries where paying taxes and royalties is not the result of legislative obligations, the commission concludes that Dutch sustainability criterion 6.2 is largely addressed by Better Biomass.	2
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.	The Dutch criterion 6.3 consists of two parts: 1. <u>Anti-corruption legislation is complied with.</u> NTA 8080-1:2015 requirement 5.6.1 requires the organisation – as far as possible – to demonstrably be acquainted with laws and regulations ... Interpretation document No 2.1, NTA 8080-1:2015, 5.6 adds that the organization shall not violate the applicable laws and regulations and can demonstrate compliance. As a result, the first part of the criterion is covered. 2. <u>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.</u> NTA 8080-1:2015 requirement 6.7.6.3 reads "The organization shall take any measures that are necessary to effectively fight corruption within the organization". It is in general wording and it is therefore left to the CB to assess whether the measures taken are sufficient to "effectively fight corruption within the organization" and whether they are "proportionate to the scale and intensity of the management activities and the risk of corruption". NTA 8080-1:2015 requirement 6.7.6.1 contains a number of anti-corruption measures. Both requirements cover the second part of the Dutch criterion. As a result the commission concludes that Better Biomass thus fully addresses Dutch sustainability criterion 6.3.	3

Principle 7: Biodiversity is maintained and where possible enhanced			
Sustainability criterion from the Dutch "regeling conformiteitsbeoordeling vaste biomassa voor energiedoelinden"		ADBE judgement on whether Better Biomass complies with the sustainability criteria	Score
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.	Better Biomass contains a definition of HCV's (NTA 8080-1:2015 3.18) and requires through NTA 8080-1:2015 6.4.1.1 and 6.4.2.2 that (a) HCV areas need to be described and – if possible, identified on a map and (b) that no biomass is produced from HCV areas. Representative areas are partly covered in HCV areas. However, it is possible that an FMU does not contain HCV areas causing that there is a risk that the part on "representative areas of the forest types" is left uncovered. Therefore, the commission concludes that Dutch sustainability criterion 7.1 is largely addressed by Better Biomass.	2
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.	NTA8080-1:2015 requirement 6.4.1.1 stipulates that the organisation shall not produce biomass from areas, or a zone of 5 km around these areas, designated for the protection of rare, threatened or endangered ecosystems OR species recognized by international agreements or included in lists drawn up by intergovernmental organizations OR the International Union for the Conservation of Nature ..[.]. The definition of protected species within the Better Biomass certification scheme (NTA 8080-1:2015 3.1) is "species of living organisms (plants, animals, fungi, bacteria) that have been designated as protected species by national legislation OR, in the absence of national legislation, species that are classified as 'vulnerable', 'endangered' or 'critically endangered' on the IUCN Red List." In interpretation document number 2.1, Better Biomass has added that within the framework of "Regeling conformiteitsbeoordeling vaste biomassa voor energietoepassingen" the term 'endangered plant and animal species' is used, which is defined as plant and animal species that are classified at least as "threatened" in the global red list of the International Union for the Conservation of Nature (IUCN) and the guidelines of the IUCN for the regional application of the red list of the IUCN. If the organization produces biomass for energy applications that will be processed and traded to be supplied to an organization that use this processed biomass to produce energy within the framework of this regulation, the organization shall comply with this definition of 'protected species'. The commission observes that, as a result, Better Biomass now includes two definitions for protected/endangered species that can be used to comply with requirement 6.4.1.1 from NTA8080-1:2015. The Better Biomass scheme manager has indicated that in the summary of the certification audit report it will have to be indicated whether an organisation has been assessed to comply with the Dutch regulation "conformiteitsbeoordeling vaste biomassa voor energietoepassingen" and including the definition for endangered species from that regulation. By doing so, it will be clear (for each Better Biomass certified company) which definition has been used. The commission is of opinion that requirement 6.4.1.1 from NTA8080-1:2015 plus the definition of the Interpretation document 2.1 address Dutch criterion 7.2. The commission is however also of the opinion that the information on which definition was actually used, is not passed on through the chain of custody. A forest manager might be certified for the definition of protected species from NTA 8080-1:2015 3.1 whereas (a trader and) an energy company downstream the CoC might be certified for the definition of endangered species from the Interpretation document no.2.1. As a result, the commission cannot score "largely addressed" or "fully addressed". The commission therefore concludes that Better Biomass insufficiently addresses Dutch sustainability criterion 7.2.	0
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	Better Biomass requirements NTA 8080-1:2015 6.2.2.1, 6.4.1.1 and 6.4.1.4 forbid the use of biomass from different types of forest land that was converted to other forms of land use (6.2.2.1 and 6.4.1.1) and to forest plantations (6.4.1.4). NTA requirement 6.4.1.4 does not contain a conditional "unless", therefore the conversion is forbidden under any condition. This is stricter compared to the Dutch criterion. As a result, the commission concludes that	3

	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.	Dutch sustainability criterion 7.3 is fully addressed by Better Biomass.	
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.	Better Biomass requirement NTA 8080-1:2015, 6.4.1.4 is of similar wording as the Dutch criterion, requiring to give preference to native species in the case of forest plantations and that at least 5% of the cultivation area shall be able to regenerate to natural forests. As a result, the commission concludes that Dutch sustainability criterion 7.4 is fully addressed by Better Biomass.	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.	The Better Biomass documents NTA-8080-1:2015, NTA-8080-2:2015 and NCS 8080:2018-08 do not include requirements for non-timber forest products (NTFPs). Better Biomass has included the following requirement on NTFPs in 6.4.2 of the Interpretation document No 2.1: "In the case of forestry, the organization shall take into account that the exploitation of non-timber forest products, including products from hunting and fishing, is part of the monitoring, measurement, analysis and evaluation process to safeguard the preservation and strengthening of biodiversity". As this Interpretation document is normative, the commission concludes that Better Biomass 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

Sustainability criterion from the Dutch "regeling conformiteitsbeoordeling vaste biomassa voor energiedoeleinden"		ADBE judgement on whether Better Biomass complies with the sustainability criteria	Score
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.	Better Biomass requirement NTA 8080-1:2015 6.5.1.1 stipulates that the organization shall take measures which are necessary in order to ensure that a) erosion is prevented and controlled, in which topographic risks are taken into account, b) the nutrient balance is maintained, c) soil organic matter is preserved and improved over time, and d) soil fertility and soil structure are maintained and improved over time. The commission judges that "coasts, river banks, erosion-sensitive areas and sloping landscapes" are all covered by "topographic risks" and therefore concludes that Dutch sustainability criterion 8.1 is fully addressed by Better biomass.	3
8.2	The water balance and quality of both groundwater and surface water in the forest management unit and downstream outside the forest management unit are at least maintained and where necessary improved.	The water balance part of the criterion is covered by Better Biomass through the "efficient use of water" from NTA8080-1:2015 requirement 6.5.2.1 and through requirement 6.4.2.3 on riparian vegetation zones that form a water buffer. The "quality of both groundwater and surface water" part of the criterion is covered (as part of requirement NTA8080-1:2015 6.5.2.1) as (in short): <ol style="list-style-type: none"> 1. no increased organic burden is allowed; 2. risks as a consequence of the storage and use of chemicals and other business processes are assessed, prevented and controlled; 3. pesticides type 1A or type 1B are excluded; 4. the use of chemicals is limited; and 5. use of surface water and groundwater does not exceed the natural replenishment during a five-year average. Better Biomass focusses on the use of water and avoiding negative consequences of using water in an agricultural context. Better Biomass focusses on water quantity and quality for agriculture and does not specifically focus on water	2

		quantity/quality aspects that are typical for forestry. The commission therefore concludes that Dutch sustainability criterion 8.2 is largely addressed by Better Biomass.	
8.3	Important ecological cycles present in the forest management unit are preserved, including carbon and nutrient cycles.	Although the Better Biomass certification scheme does not include the term "ecological cycles", it addresses these cycles by "the nutrient balance is maintained" and "the soil organic matter (SOM) is preserved and improved over time" in NTA8080-1:2015 6.5.1.1 and "the carbon cycle remains at least maintained" in NTA8080-1:2015 6.2.2.4. As a result, the commission concludes that Better Biomass 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.	The Better Biomass certification scheme documents NTA8080-1:2015, NTA8080-2:2015 and NCS 8080:2018-08 do not include requirements for reduced impact logging and for most suitable road construction techniques. The normative Better Biomass Interpretation document No. 2.1 does include a copy of Dutch criterion 8.4 under requirement 6.4.2. As Better Biomass does not contain specific indicators or further instruction on how the criterion is to be implemented (see also general point 0.1), the commission concludes that Better Biomass largely addresses criterion 8.4.	2
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.	Better Biomass contains – in NTA 8080-1:2015 6.5.3.2, two specific requirements on using fires to achieve forest management objectives. Requirement 6.5.3.2.1 covers the part of the Dutch criterion on "to achieve management objectives", and requirement 6.5.3.2.2 covers the part on "adequate control measures". As a result, the commission concludes that Dutch sustainability criterion is fully addressed by Better Biomass.	3
8.6	The forest management measures are designed to prevent and control diseases and pests where these form a threat to natural capital.	The Better Biomass certification scheme documents NTA8080-1:2015, NTA8080-2:2015 and NCS 8080:2018-08 do include measures to improve / maintain biodiversity in general but do not specifically mention pests and diseases. NTA8080-1:2015 6.4.2.2 stipulates that "the organization shall take measures that are necessary in order to [...] ensure that it is prevented that the environment is disturbed by invading alien species (including genetically modified crops)". To the opinion of the commission, invasive species can bring pests and diseases, but do not necessarily include all pests and diseases as there are also native pests and diseases. Better Biomass Interpretation document No 2.1 adds to 6.4.2.2 the requirement that "measures related to 6.4.2.2 items c) and d) shall take into account the prevention and control of diseases and pests, which can have a negative impact on biodiversity". As this interpretation document is normative, the commission concludes that Better Biomass 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.	The Dutch criterion consists of two parts: 1. <u>The use of chemicals is only permitted if ecological processes and the optimal deployment of sustainable alternatives prove insufficient.</u> This part is covered by NTA 8080-1:2015 6.5.2.1 part e) which contains the same requirements in almost identical words as compared to the Dutch criterion. 2. <u>Pesticides classified as Type 1A and 1B by the World Health Organisation and chlorinated hydrocarbons are not permitted.</u> This second part is covered by NTA 8080-1:2015 6.5.2.1 part d) which also is an almost exact copy of the wording of the Dutch criterion. The commission concludes that Better Biomass thus addresses Dutch sustainability criterion 8.7 and scores "fully addressed".	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.	Better Biomass covers prevention, collection, storage and disposal of waste in NTA 8080-1:2015 6.5.4.1, including the requirement "The organization shall take any measures that are necessary to ensure that the practices applied in its operations are aimed at responsible waste management". The commission concludes that Dutch sustainability criterion 8.8 is thus fully addressed by Better Biomass.	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 Better Biomass complies with the sustainability criteria	Score
9.1 The production capacity of all forest types represented in the forest management unit is maintained.	NTA8080-1:2015 6.2.2.4 stipulates that "the production location from which the timber originates, is managed in order to maintain in the long-term or to increase carbon stocks by demonstrating that the carbon cycle remains at least maintained". To the opinion of the commission this forms indirect proof – although relatively weak - that the production capacity in all the forests is maintained. In the normative Interpretation document No 2.1, under 6.2.2, the following addition is made: "In 6.2.2.4 reference is made to management of the production location in view of maintaining the carbon cycle of forest in the long-term. This implies that the organization shall maintain the production capacity of all forest types represented in the production location". As this is a copy of the Dutch criterion without further guidance for implementation, the commission will score "largely addressed" instead of "fully addressed". As a result, the commission concludes that Better Biomass largely addresses Dutch sustainability criterion 9.1.	2
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.	NTA 8080-1:2015 5.6.1 stipulates that "the organization shall, as far as applicable, demonstrably be acquainted with laws and regulations that relate to the sustainability aspects in this NTA". The commission is of opinion that if an organisation demonstrably is acquainted with laws and regulations on the topics mentioned in criterion 9.2 this does not mean that (i) all these topics are actually covered by laws and regulations and (ii) that the FMU is protected through being acquainted with these laws and regulations. The sufficient protection (which, in the view of the commission, must include active protection against illegal actions by others, so more than complying with legislation) is covered by the requirements under 5.6 and 5.7 of the Better Biomass interpretation document number 2.1, by <ul style="list-style-type: none"> • "...ensuring that the production location is protected against all forms of illegal exploitation of products that can be obtained from the production location (including hunting and fishing), illegal establishment of settlements, illegal land use, illegally initiated fires, and any other illegal activities"; and • "The measures to be taken by the organization shall include appropriate measures to prevent any illegal activity, whether or not covered by laws and regulations. EXAMPLE Illegal hunting or fishing can be laid down by legislation, but is also a sustainability aspect related to the preservation of biodiversity. Appropriate measures to prevent illegal hunting or fishing can include fences, sensors, cameras or patrols, depending on country, surface area, topography, and so on." The commission concludes that Dutch sustainability criterion 9.2 is fully addressed by Better Biomass.	3

Principle 10: Sustainable forest management is achieved through a management system		
Sustainability criterion from the Dutch "regeling conformiteitsbeoordeling vaste biomassa voor energiedoeleinden"	ADBE judgement on whether Better Biomass complies with the sustainability criteria	Score
10.1 The forest management system is designed to	NTA 8080-1:2015 5.7 contains requirements on monitoring including analysis, evaluation and additional measures,	3

	achieve the objectives of a forest management plan and covers the inventory, analysis, planning, implementation, monitoring, evaluation and adjustment cycle.	but does not refer to a forest management plan. Better Biomass Interpretation document No. 2.1 stipulates that “in the case of forestry, the monitoring, measurement, analysis and evaluation is normally part of the forest management plan in order to achieve the long-term goal for the ecological functions of the production location. The documented information, as required in 5.7.2, shall include a forest management plan that at least contains: <ul style="list-style-type: none"> - a description of the current condition of the production location; - long-term goals for the ecological functions of the production location; - the average 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.”. The normative instruction document includes that there shall be a forest management plan and that this contains all the elements from sustainability criterion 10.1 including long term goals. As a result, the commission concludes that Dutch sustainability criterion 10.1 is fully addressed by Better Biomass.	
10.2	A forest management plan is drawn up that at least includes: <ul style="list-style-type: none"> - 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. 	Dutch criterion 10.2 contains five parts. All these five parts (1. Presence of a plan, and then the four bullet points from criterion 10.2) are covered through the normative Interpretation document No 2.1, 5.7: “The documented information, as required in 5.7.2, shall include a forest management plan that at least contains: <ul style="list-style-type: none"> - a description of the current condition of the production location; - long-term goals for the ecological functions of the production location; - the average 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”. Moreover, the description of current condition is also covered by Better Biomass requirements NTA 8080-1:2015 5.2.1, 5.2.2 and 5.2.3”, and the long-term goal and the budget plan are also covered by Interpretation document 2.1, requirement 5.2. The commission therefore concludes that Dutch sustainability criterion 10.2 is fully addressed by Better Biomass.	3
10.3	Essential elements for the management of the forest are indicated on maps.	Better Biomass requires (through NCS 8080:2018-08 6.1 point e) that organisations that are to be audited under the scope of the Better Biomass certification scheme shall submit maps showing the area of cultivation per production location, in case of biomass producer or smallholder. In normative Interpretation document No 2.1, NTA 8080-1:2015, Clause 3 it is explained that “In the case of forestry, the ‘production location’ can also be read as ‘forest management unit’ ”. The Better Biomass interpretation document states that this requirement also includes the requirement to indicate High Conversion Value areas (as an example of “essential elements”) on maps. As a result, the commission concludes that Dutch sustainability criterion 10.3 is fully addressed by Better Biomass.	3
10.4	The implementation of the forest management plan is periodically monitored and the ecological effect of the forest management is evaluated.	Through NTA 8080-1:2015, 5.7 the Better Biomass certification scheme contains requirements on monitoring and evaluation. In this part of the Better Biomass certification scheme no reference is made to monitoring and evaluation of the forest management plan. However normative interpretation document No 2.1, NTA 8080-1:2015 5.7 makes clear that the monitoring and evaluation within Better Biomass shall also include the aspects from the forest management plan: “The monitoring, measurement, analysis and evaluation shall also consider the long-term goals for the ecological functions, the average annual allowable cuts and, if applicable, the annual allowable harvest of non-timber forest products as described in the forest management plan in order to assess whether additional measures will be needed”. As a result, the commission concludes that Dutch sustainability criterion 10.4 is fully addressed by Better Biomass.	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.	The Better Biomass certification schemes includes requirements on expertise and knowledge from staff in NTA 8080-1:2015 6.7.1.3 and 6.7.3.6. There is no specific link between required expertise and the forest management; the required expertise is more generically described and required. As this is a logical consequence of the scope of Better Biomass being broader than forest management, the commission concludes that the generic requirement is sufficient and thus Dutch sustainability criterion 10.5 is fully addressed by Better Biomass.	3

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 energiedoelinden"	ADBE judgement on whether Better Biomass complies with the sustainability criteria	Score
11.1 A group or regional association is led and supervised by an independent legal entity.	In NCS 8080:2018-08 A.2 Better Biomass contains a similar requirement as compared to the criterion, and hence the commission concludes that criterion 11.1 is fully addressed by Better Biomass.	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.	The criterion states that both the group as the individual members within a group should meet the sustainable forest management requirements (the criteria under principles 6-10). This requirement is, to the opinion of the commission, to be checked independently from whether the certification scheme complies with the criteria under principles 6-10. In other words: even if all criteria under principles 6-10 score "0" the criterion 11.2 can still be scored "3". Dutch sustainability criterion 11.2 consists of two parts. Both parts of the criterion are covered by requirement NCS 8080:2018-08, A.3. As a result, the commission concludes that Dutch sustainability criterion is fully addressed by Better Biomass.	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 energiedoelinden"	ADBE judgement on whether Better 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 compliance with the requirements of the chain of custody system.	The Dutch criterion consists of two parts: 1. <u>Each link in the CoC bears final responsibility.</u> Better Biomass does not contain a single requirement complying with this first part of criterion 12.1. From several requirements (NTA 8080-2:2015 5.1.1 in combination with 4.1.1, 4.2.1 and 5.1.3), the commission however concludes that all organisations along the CoC have a responsibility in closing the CoC, and therefore the commission considers this part of the criterion to be covered. 2. <u>Each link in the CoC has a quality management system in place that provides safeguards for compliance with the requirements of the chain of custody system.</u> This part of the criterion is covered by the combination of requirements NTA 8080-2:2015 4.2.1 and 5.1.1. As a result, the commission concludes that Dutch criterion 12.1 is fully addressed by Better Biomass.	3
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.	NTA 8080-2:2015, 5.2 states that every organisation shall provide the amount of carbon equivalents [as g CO ₂ eq/MJ] in a transaction certificate for every individual consignment. This covers the first part of the criterion, with the addition that the normative Interpretation document No 2.1 adds some relevant comments to this Better Biomass requirement. NTA 8080-1:2015 Annex C, which is referred to from the additional text in normative interpretation document No 2.1, contains part of the methodology from recent European Commission publications on sustainability criteria for solid biomass and further states (C.3.5) that calculations shall be made according to these documents. This covers the second part of the criterion.	3

		As a result the commission concludes that Dutch sustainability criterion 12.2 is fully addressed by Better Biomass.	
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.	The set of requirements under 5.4 in NTA 8080-1:2015 is on data and information, with NTA 8080-1:2015 5.4.5 requiring that data, sources of information and assumptions used are retained for at least five years. NTA 8080-2:2015, 5.1.1 states that "all organisations in the biomass chain shall have a valid NTA8080 certificate", causing that each link in the CoC needs to comply with requirement 5.4.5. As a result, the commission concludes that Dutch criterion 12.3 is fully addressed by Better Biomass.	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>The commission is of opinion that the following eight pieces of information have to be passed on through the CoC and therefore have to be registered for all incoming or outgoing consignments by each link in the CoC:</p> <ol style="list-style-type: none"> <u>Biomass category or information allowing to unambiguously determine the biomass category.</u> Interpretation document No. 2.1 NTA 8080-2:2015, 5.2 requires that the biomass category is included in the product description. As a result, Better Biomass covers this part of criterion 12.4. <u>For category 2 biomass: has the sustainability been demonstrated at regional or at forest management level?</u> As Better Biomass did not request for approval of a risk based approach to certify biomass category 2 at the regional level, and as category 2 biomass within Better biomass is certified at the forest management level, Better Biomass covers this part of the criterion. <u>For category 1 and 2 biomass: is the biomass controlled biomass?</u> Better Biomass does not distinguish controlled biomass in its chain of custody. As Better Biomass does not include a controlled biomass category (and hence did not request for approval of criterion 12.6), this part of the criterion is not applicable for Better Biomass. This part of the criterion might become a future point of attention when Better Biomass shall recognise other certificates from other certification schemes which include controlled biomass. <u>Country of origin of the feedstock.</u> NTA 8080-2:2015 5.2 requires that every organisation shall, in a transaction certificate for every individual consignment, provide the origin of the raw material. Therefore Better Biomass covers this part of the criterion. <u>The kind of GHG emission value that is being used: (a) a total default value, (b) an actual value(s), or (c) a combination of disaggregated default values and actual values.</u> In NTA 8080-2:2015 5.2 Better Biomass requires that every organisation shall provide (in a transaction certificate for every individual consignment) the amount of carbon equivalents (as g CO₂eq/MJ) (either applicable default values or actual values). As "applicable default values" can either be a total default value or disaggregated default values in combination with default values, the commission concludes that Better Biomass covers this part of the criterion. The commission has noted that Better Biomass gives further guidance plus more detailed requirements on this topic in normative Interpretation Document No. 2.1, under NTA 8080-2:2015 5.2. <u>In case actual values are being used: the GHG emission in g CO_{2,equivalent} per MJ or ton biomass produced.</u> Better Biomass covers this part of the criterion through NTA8080-2:2015 5.2 and Interpretation document No. 2.1, Annex B. For further details see the text from the scheme documents and the motivation under criterion 12.2. <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> As Better Biomass does not yet recognise other certification schemes, it is clear that a Better Biomass certificate demonstrates that the first link in the chain of custody was also certified by Better Biomass. As a result, Better Biomass covers this part of the criterion. <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> As Better Biomass does not yet recognise other certification schemes, it is clear that a Better Biomass certificate at the end user demonstrates that the Better Biomass scheme was used to demonstrate compliance with the CoC criteria under principles P12-P13. 	3

		The commission concludes that Better Biomass covers 7 of the 8 parts of the criterion and – as the remaining part 3 is currently not applicable for Better Biomass – that Dutch sustainability criterion 12.4 is fully addressed by Better Biomass.	
12.5	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: - The method shall be applied at least at the level of a location; - The organisation defines a period with a maximum of a year, during which incoming and outgoing consignments are measured and reports the results; - All sustainability characteristics of mixed biomass output can be traced back to the characteristics and quantities of the individual consignments, taking account of the applicable conversion factors.	The criterion 12.5 consists of four parts: 1. Each link in the chain of custody applies a mass balance in case of mixing or splitting of materials with different sustainability characteristics. NTA 8080-2:2015 5.3.3 requires that “the organization’s records shall demonstrate unambiguously that the supplied, stored and delivered amount of biomass in accordance with NTA 8080 or equivalent is in balance, taking into consideration any conversion losses”. The commission concludes that this covers the first part of the criterion. 2. <u>The method shall be applied at least at the level of a location</u> This part is covered by NTA 8080-2:2015, 5.4.2. 3. <u>The organisation defines a period with a maximum of a year, during which incoming and outgoing consignments are measured and reports the results</u> The commission has noted that Better Biomass does not allow deficiencies on the mass balance, so the mass balance must “be closed” at any point in time. Furthermore Better Biomass requires that certification audits, which include audits on the mass balances, are to be performed at least once a year. As a result the commission concludes that Better Biomass covers this part of the criterion. 4. <u>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.</u> Better Biomass allows three forms of mass balancing, see NTA 8080-2:2015 4.1.2. These mass balances ensure that outgoing information is based on incoming information. In addition, Better Biomass requires – through NTA 8080-2:2015 5.3.1 item h) that registrations per consignment sent shall at least include the details of consignments received. As a result, the commission concludes that this part of the criterion is covered by Better Biomass. As Better Biomass covers all four parts, the commission concludes that Dutch sustainability criterion 12.5 is fully addressed by Better Biomass.	3
12.6	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.	No approval has been requested by Better Biomass for criterion 12.6, therefore the commission has not assessed this criterion.	-

Principle 13: In case of a group management system for the chain of custody the same requirements apply to the group as a whole as to individual businesses

Sustainability criterion from the Dutch “regeling conformiteitsbeoordeling vaste biomassa voor energiedoeleinden”		ADBE judgement on whether Better Biomass complies with the sustainability criteria	Score
13.1	A group is led by a legal entity that is responsible for the group as a whole. This entity uses a	Criterion 13.1 consists of several parts which are covered by the following Better Biomass requirements: • “A group is led by a legal entity”: This is covered by NCS 8080:2018-08, Annex A.2	3

	<p>management system as well as technical and human resources that enable it to supervise the participating locations within the scope of the system. The entity conducts an annual audit of a sample of the affiliated group members.</p>	<ul style="list-style-type: none"> • “The group leader is responsible for the group as a whole”: This is covered by NCS 8080:2018-08, Annex A.5.2. • “The group leader uses a management system that enables it to effectively supervise the participating locations within the scope of the system”: This is covered by NCS 8080:2018-08 Annex A: A5.1, A6 and A7 and by the fact that an organisation that uses Better Biomass automatically applies a “quality management system” (see criterion 12.1). • The entity conducts an annual audit of a sample of the affiliated group members: This is covered by NCS 8080:2018-08 Annex A.5.2 point g, “periodic audit” and point j, “reporting the results of the annual audit”. Therefore this part is also covered. <p>Overall the commission concludes that Dutch criterion 13.1 is fully addressed by Better Biomass.</p>	
13.2	<p>The group applies to the requirements 12.1 up to and including 12.6. Furthermore, each group member individually meets these requirements insofar as applicable to their own activities.</p>	<p>In NTA 8080:2017-04, Annex A.3, Better Biomass requires that both a group and each group member “shall comply with all requirements from NTA8080-1 and NTA8080-2, as far as applicable”. The commission concludes that Dutch sustainability criterion 13.2 is fully addressed by Better Biomass.</p>	3
13.3	<p>The group leader uses a registration system to record:</p> <ul style="list-style-type: none"> - the names and addresses of the members; - a declaration submitted by each member in which they declare that they meet chain of custody system requirements; - incoming and outgoing consignments of each individual group member. 	<p>Criterion 13.3 consists of three parts: The group leader uses a registration system to record:</p> <ol style="list-style-type: none"> 1. <u>the names and addresses of the members</u> Better Biomass NCS 8080:2018-08 Annex A7 point a) requires that the group leader shall maintain an overview of group members, with name of company, address, coordinates of contact persons. This part of the criterion is therefore covered. 2. <u>a declaration submitted by each member in which they declare that they meet chain of custody requirements</u> NCS 8080:2018-08, Annex A.7 point c) requires that the group leader shall maintain the declarations signed by the group members. This refers to the declarations as mentioned in NCS 8080:2018-08 Annex A4 “Group members that enter the group shall sign an agreement with the group leader in which they declare that they have taken notice of the rules for participation”. The Better Biomass scheme is not very clear on whether these rules for participation include a direct statement to meet the CoC requirements. Indirectly it can however be concluded that by signing this declaration, the group members agree to meet the CoC requirements as (1) the group leader shall maintain records showing the received and delivered biomass flows on consignment level for each group member (Annex A.7 point d), (2) the fact that only the participants can provide such information, (3) the fact that the group member shall endorse the rules of participation, have demonstrable knowledge about the group procedures and the applicable requirements in NTA 8080-1 and NTA 8080-2 (NTA 8080-2 is on CoC requirements) and shall implement measures related to compliance with the applicable requirements in NTA 8080-1 and NTA 8080-2 (first part of A5.3), and (4) the rules for participation include the efforts that group members shall make during the period of participation (Annex A.4 point d) which - following from points 1 – 3 above - must include efforts for meeting the CoC requirements. As group members shall meet the NTA8080-1 and NTA8080-2 requirements (as far as they are applicable to the organization) (Annex A.3) and as the group leader is responsible for verifying that group members meet these requirements, as far as applicable (Annex A5.2 point c), the commission concludes that this part of the criterion is covered. 3. <u>to record the incoming and outgoing consignments of each individual group member</u> NCS 8080:2018-08 Annex A7 point d stipulates that the group leader shall maintain records showing the received and delivered biomass flows on consignment level for each group member. This part of the criterion is therefore covered. <p>The commission concludes that Dutch sustainability criterion 13.3 is fully addressed by Better Biomass.</p>	3

5 Documents used for the assessment of certification scheme Better Biomass

The following documents have been used for the assessment of certification scheme Better Biomass. Documents 1-7 were submitted by the scheme manager as part of the request for approval in April 2018. Documents 8-11 were submitted by the scheme manager in August and September 2018, as is further explained in paragraph 2.4.

1. [NTA 8080-1:2015](#), Sustainably produced biomass for bioenergy and bio-based products - Part 1: Sustainability requirements
2. [NTA 8080-2:2015](#), Sustainably produced biomass for bioenergy and bio-based products - Part 2: Chain-of-custody requirements
3. [Better Biomass certification scheme \(NCS 8080:2018-04\)](#)
4. [Better Biomass Interpretation Document No 2](#) (2018-04)
5. [NEN Scheme management manual \(version 4\)](#)
6. [NEN By-laws & Rules of Procedure](#)
7. [Format licence agreement](#)
8. [Better Biomass certification scheme](#) (NCS 8080:2018-08)
9. [Better Biomass Interpretation Document No 2](#) (2018-08)
10. [NEN Scheme management manual](#) (version 5)
11. [Better Biomass Interpretation Document No 2.1](#) (2018-09)
12. U.S. [Endangered Species Act](#) (ESA)
13. Harris, J.B.C. et al, [Conserving imperiled species: a comparison of the IUCN Red List and U.S. Endangered Species Act](#), Conservation Letters 00 (2011)
14. US [Fish and Wildlife Service](#)

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

Sustainability requirements Category	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

Category	Source	First link chain of custody
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
CB	Certification Body
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
GHG	GreenHouse Gas
HCV	High Conservation Value
ILUC	Indirect Land Use Change
IUCN	International Union for Conservation of Nature
NEN	Dutch Standardisation Institute
NTFPs	Non-Timber Forest Products
NTA	Nederlandse Technische Afspraak (Dutch Technical Agreement)
RED	Renewable Energy Directive
SDE+	A Dutch subsidy scheme (feed-in tariff) for production of renewable energy
SOM	Soil Organic Matter