



Annual report 2018

Sustainable biomass covenant

2 April 2019



Table of contents

1	Introduction	3
2	Results biomass sourcing and valorisation	4
3	Results stimulation programme	5
3.1	General	5
3.2	Results 2018	5
3.3	Background	6
4	Monitoring growth paths	8
5	Observations and recommendations	9
Annex A	Reporting requirements	11
Annex B	Questionnaire	12

NEN Energy

P.O. Box 5059
NL-2600 GB Delft

Vlinderweg 6
NL-2623 AX Delft

T +31 15 2 690 326
F +31 15 2 690 207

energy@nen.nl
www.nen.nl

Dutch network of standardisation

AUTHOR

Jarno Dakhorst
T +31 15 2 690 245
M +31 6 33 334 671
E jarno.dakhorst@nen.nl

1 Introduction

The 'Sustainable biomass covenant' [in Dutch: 'Convenant duurzame biomassa'] (further: 'Covenant') was signed in 2015 as part of the Dutch Agreement on Energy for Sustainable Growth (2013). The Covenant includes agreements between energy companies and environmental non-governmental organisations about sustainability requirements for biomass being used for co-firing in coal-fired power plants in the Netherlands within the framework of the subsidy scheme for renewable energy [in Dutch: 'SDE+ regeling'].

The Covenant includes an article about the annual reporting by an independent party about the efforts by the energy companies and the results achieved in the past year. This report will be presented to the chairperson of the Monitoring Committee [in Dutch: 'Borgingscommissie'] of the Dutch Agreement on Energy. The topics to be addressed in this report are specified in Article 7 of the Covenant (see Annex A). NEN is contracted to provide the 2018 report.

This report describes the activities of 2018 within the framework of the Covenant. The information in this report is based on the input received from the energy companies by means of a questionnaire (see Annex B) and other information sources. As agreed among the Covenant partners, the annual report of 2018 will also include a mid-term evaluation and outlook how the objectives set in the Covenant can be achieved.

Table 1 provides an overview of the five biomass categories distinguished in the Covenant, which are also linked to the Dutch regulation on conformity assessment of solid biomass for energy application [in Dutch: 'Regeling conformiteitsbeoordeling van vaste biomassa voor energietoepassingen'].

Table 1 — Description of biomass categories

Category	Description
Category 1 biomass	Woody biomass (branches, tops, trees and primary felling residues and not mixed with or contaminated by foreign materials or substances) sourced directly from forests of 500 ha or larger
Category 2 biomass	Woody biomass (branches, tops, trees and primary felling residues and not mixed with or contaminated by foreign materials or substances) sourced directly from forests of less than 500 ha
Category 3 biomass	Biomass residues (branches, tops, trees) produced during the course of managing urban and rural green spaces and nature areas, other than forests designated for the preservation, restoration or enhancement of specific natural, recreational or aesthetic functions
Category 4 biomass	Biomass residues directly from agricultural businesses. Short rotation crops are excluded, with the exception of the residues hereof
Category 5 biomass	Waste flows and residues from the agri-food and wood industry (secondary residual waste) and tertiary residual waste such as post-consumer wood waste

2 Results biomass sourcing and valorisation

Biomass used

The energy companies have reported that for approximately 165.000 metric tonnes of biomass has been used, divided among about 25 % Category 1 biomass, 57 % Category 2 biomass, and 18 % Category 5 biomass.

Nature of biomass used

The energy companies have reported that only biomass in the form of pellets have been used.

Origin of biomass used

The energy companies have reported that all biomass sourced originate from European countries including a limited share from the Netherlands.

NOTE 1 The origin refers to the country where the original biomass (trees or agriculture crops) was produced, not to the country where the biomass was processed into its final identity (e.g. pellets, chips or other) as valorised by the energy companies.

Sustainability certification of biomass used

The energy companies have reported that the biomass sourced from countries outside the Netherlands were both FSC certified and SBP or GGL certified¹ (i.e. double certificate) to demonstrate the sustainability of biomass used. Pending the approval of certification schemes in the framework of the Dutch regulation on conformity assessment of solid biomass for energy application, for which the approval process was initiated in 2018, the Dutch government has agreed that FSC and PEFC certified woody biomass from forestry can be used to demonstrate sustainability of Category 1 and Category 2 biomass.

NOTE 2 Sustainability certification refers here to certification for sustainable forest management (SFM).

Chain-of-custody certification of biomass used

The energy companies have reported that they have applied either SBP certification or GGL certification for the chain of custody of the biomass used from countries outside the Netherlands.

Extra-legal sustainability criteria

One energy company has reported that they comply with very high probability to extra-legal sustainability criteria, considering that a significant share of the Category 1 and Category 2 biomass originates from countries where those apply.

¹ FSC = Forest Stewardship Council, SBP = Sustainable Biomass Partnership, GGL = Green Gold Label

3 Results stimulation programme

NOTE The information in this section is adopted from the annual report provided by the DBC Foundation.

3.1 General

The Dutch Biomass Certification (DBC) Foundation was established on 30 December 2015. The task of the DBC Foundation is to develop and implement a stimulation programme that supports the goal of reaching 100 % FSC or equivalent certification of biomass used in co-firing in The Netherlands. The scope of the stimulation programme is to promote and accomplish certification among small forest owners (SFO) in North America.

NOTE In the context of the Covenant an organisation with a forest area less than 500 hectares or 1 200 acres is defined as small forest owner.

3.2 Results 2018

The activities developed by the DBC Foundation in 2018 have resulted in the following results:

a) SFOs approached for participation in certification programs

- 50 – 75 SFO landowners in the state of Georgia (United States) have been approached for participation in a group management programme.
- 19.220 SFO landowners in the states of Alabama and Florida (United States) have been approached about active sustainable forest management in general, and certification in particular.

Different communication tools have been used, including messaging, marketing, and educational materials distributed via direct mail, social media, e-mail, and other media as appropriate. Also, after testing a new messaging and platform, more effective engagement techniques via social media were deployed.

b) Organisation of trainings, support activities and other promotional activities

- 8 field days for SFO landowners
- 5 training sessions for foresters and certification inspectors
- 2 stakeholder meetings to develop tools for certification
- Development of an innovative tool: the Landscape Management Plan (LMP)

An LMP addresses the chief barrier for most landowners to participate in forest certification, which is the requirement to have a forest management plan. An LMP is a document produced through a multi-stakeholder process that identifies, based on an analysis of geospatial data and existing regional conservation plans, forest management priorities at a landscape rather than at a parcel scale.

c) Certification of SFOs since the start of the stimulation programme

- 234 SFO landowners with a total acreage of 28.306 hectares (64.943 acres).

d) Overview of organisations and experts involved with the execution of the stimulation programme

- Pellet producers, certification scheme owners and utilities: Participation in a DBC workshop in Atlanta, Georgia.
- American Forest Foundation (AFF) and Sustainable Forestry Initiative (SFI): Execution of two initial projects under the DBC stimulation programme promoting sustainability certification amongst SFOs.
- Foresters and certification inspectors: Participating in the execution of the AFF and SFI projects.

AFF and SFI are two highly reputable and leading organisations in the fields of biodiversity conservation, family woodland owner conservation and forest sustainability certification.

3.3 Background

The implementation of the stimulation program in 2018 faced continued uncertainties over the approval by the Dutch government of existing certification schemes. Given the objective of the DBC Foundation, the stimulation programme should promote certification that supports the goal of reaching 100 % certification of biomass used in co-firing in The Netherlands. The DBC Foundation was therefore not in a position to decide on a definite project for implementation of the stimulation programme.

2018 Project

Nevertheless, the DBC Foundation decided to advance with a ‘2018 Project’ to keep developing activities that serve the DBC Foundation's objectives, within the existing limitations and bringing the time period until the end of 2018 when more clarity on the approval of existing certification schemes was expected. The annual reporting requirements were taken as leading principles for the selection of activities under the ‘2018 Project’.

The DBC Foundation commissioned two projects under the ‘2018 Project’, submitted by American Forest Foundation (AFF) and Sustainable Forestry Initiative (SFI). Table 2 summarises both projects.

Table 2 — Description of two projects under the '2018 Project'

	AFF	SFI
Objective	Encourage certification amongst SFO	Promote SFO group certification
Activities	<ul style="list-style-type: none"> — Approach SFOs for participation in certification programs — Organise training sessions, support activities and other promotional activities — Certify SFO landowners. — Engage with organisations and experts 	<ul style="list-style-type: none"> — Yield new group certificates using the SFI small lands group certification module — For the group certificate pellet mills certified against the SFI fibre sourcing standard serve as group managers

Workshop for biomass pellet producers

The DBC Foundation organised a one-day workshop in Atlanta, Georgia, for biomass pellet producers based in the Southeast of the USA. The aim of this workshop was:

- to inform them on DBC's stimulation programme to promote SFO certification and the Dutch pellet market and policy developments;
- to discuss DBC's stimulation program for the 2019-2023 period.

Other matters

The DBC Foundation maintains its website in the Dutch and English language. The public summaries of the DBC Executive Board meetings are published on the website. Also, the website is used to communicate about the developments under the DBC stimulation programme.

The NGOs have neither participated in the DBC Foundation in 2018. In an informal meeting between the DBC Foundation and Natuur&Milieu (N&M), as representative of the NGOs, N&M confirmed that it is justified for the DBC Foundation to continue its work despite the lack of responsiveness and participation of the NGOs.

In 2018, no approvals for full coverage of the sustainability criteria were issued by the Dutch government. The government extended the transition period with one year and recognised the first certification bodies. This provides important guidance for the DBC activities in 2019 and beyond.

The DBC Foundation has produced a guideline for compliance with the extra-legal criteria for the co-firing of biomass as agreed under the Covenant.

The DBC Foundation has operated in accordance with its Governing Policy and Anti-Trust Compliance Policy Statement and will continue to do so.

4 Monitoring growth paths

In the Covenant, parties have agreed about an ambitious growth path and a minimum growth to achieve the objective of 100 % FSC or equivalent certified biomass used for co-firing by the energy companies within the framework of the subsidy scheme for renewable energy. Table 3 provides an overview of the ambitious, minimum and actual growth path ².

Table 3 — Overview of the ambitious, minimum and actual growth path

Path ^a	2016	2017	2018	2019	2020	2021	2022	2023
Ambitious	10 %	20 %	40 %	70 %	100 %	100 %	100 %	100 %
Minimum	10 %	20 %	40 %	50 %	60 %	80 %	90 %	100 %
Actual cat. 1 + 2	0 % ^a	N/A ^b	100 %					
Actual cat. 2	0 % ^a	N/A ^b	100 %					

^a Based on annual report, only non-certified biomass was used for co-firing by the energy companies within the framework of the subsidy scheme for renewable energy.
^b Based on annual report, no biomass was used for co-firing by the energy companies within the framework of the subsidy scheme for renewable energy.

When only looking at Table 3, then it looks the energy companies have achieved the objective of 100 % certified biomass as in 2018 all biomass sourced from forests (both large and small forest management units) was FSC certified. In the Dutch Agreement on Energy for Sustainable Growth it has been agreed that biomass for co-firing will account for 25 PJ of renewable energy production to achieve the overall target of renewable energy production (i.e. 14 % in 2020). For achieving 25 PJ it is indicated that approximately 3,5 million tonnes of (wood) pellets need to be valorised annually. As mentioned in Section 2, in 2018 less than 0,17 tonnes of pellets have been used.

² From Covenant it is not clear whether paths apply to Category 2 biomass only (since articles 3 and 4 only apply in the case of Category 2 biomass) or to Category 1 and 2 biomass (because of note in article 3 stating that "Where this Covenant refers to 100% FSC certification, this concerns the biomass categories 1 and 2 as laid down in table 1 of Appendix A: Woody biomass form small and large forest management units").

5 Observations and recommendations

As indicated in Section 4, in order to meet the 25 PJ target, the energy companies have to increase the use of biomass. Using the figure of 3,5 million tonnes of pellets annually, a total amount of 28 million tonnes of pellets will be needed in the period 2016-2023³. The past three years, about 0,25 million tonnes has been valorised. This means that in the next five years at average over 5,5 million tonnes of pellets need to be valorised. Based on the current information, it is hard to say whether the energy companies are able to source the biomass needed for producing these quantities of pellets from sustainably managed forests with a certificate according to an approved certification scheme in the case of category 1 and 2 biomass.

Referring to Section 3, only recently the Dutch government has approved the first number of certification schemes that can be applied to demonstrate compliance with the sustainability criteria (all or subset of criteria) linked to all or a subset of biomass categories. This provides certainties to apply for subsidy or 'activate' an earlier subsidy decision, and to scale up (also) the sourcing of sustainable produced biomass from forestry including certification of SFOs in North America. Given the delay in the approval process of certification schemes in the framework of the Dutch regulation on conformity assessment of solid biomass for energy application, the Dutch government has extended the exemption to accept FSC and PEFC certified woody biomass from forestry to demonstrate sustainability of Category 1 and Category 2 biomass to ensure that sufficient certified biomass is available⁴.

As mentioned before, it is difficult to predict whether the energy companies will remain on track with the minimum or ambitious growth path. Currently, all biomass used for co-firing within the framework of the subsidy scheme is sourced within Europe. The Covenant, with its stimulation programme, has a strong focus on biomass sourced from forests in North America including SFOs whilst sourcing from Europe is also recognised. Looking at the results of the DBC stimulation programme, as described in Section 3, several actions have been undertaken to inform, engage and train SFOs and other interested parties in sustainability certification. It is hard to say which share of these SFOs will opt for (group) certification and how much time they need to qualify for certification.

Currently, almost 30.000 hectares of forest owned by SFOs in North America is FSC or equivalent certified. It should be noted that from 2020 those SFOs should be certified according to an approved certification scheme. The characteristics of these forests are not known to give an indication which volume of biomass can sustainably be sourced from these forests and in this way to make an estimation, by extrapolation, of the forested area that needs to be certified according to an approved certification scheme. In addition to SFOs, there are also large North American and European based companies that can deliver certified materials. Market dynamics about supply and demand including the premium that might need to be paid will influence the

³ It is assumed that the figure of 3,5 million tonnes of wood pellets annually covers the period of the Covenant. Anyway, the biomass volumes need to be increased significantly to meet the 25 PJ target.

⁴ See <https://www.rvo.nl/subsidies-regelingen/stimulering-duurzame-energieproductie/categorie%C3%ABn/biomassa-sde/duurzaamheidseisen> [in Dutch] for more information about this exemption.

biomass volumes (and their origin) that will be available for valorisation within the framework of the subsidy scheme for renewable energy.

An additional uncertainty is the current debate with respect to the so-called Urgenda verdict, that requires the Dutch government to take additional measures to improve GHG emission savings till a level of 25 % reduction compared to level of 1990. One of the possibilities is to close one or more coal-fired power plants as big contributors to the national GHG emissions. This might impact the investment decisions at the short term and will impact the volumes of biomass that can be used for co-firing in the case coal-fired power plants need to close (and with that the overall renewable energy target that depends on biomass for a significant share).

In order to improve the evaluation of the growth paths, it is recommended to expand the questionnaire that is annually sent to the energy companies with questions about the outlook, within the boundaries of competition law, e.g. expected biomass volumes based on subsidy decisions, expected share of certified biomass (per category) based on contracts or other market developments) as well as qualitative description of progress and concerns. This provides more information for assessing whether the energy companies remain on track with the minimum and ambitious growth path or deviate. In this way, the stimulation programme can be adjusted where needed.

Annex A Reporting requirements

In the Covenant it has been agreed that the annual report is both at company level and at sector level, where relevant and eligible within the competition law. In addition, it has been agreed that the annual report contains at least the following items:

- An overview of the percentage, volume, nature and origin (by country) of the biomass used, with a distinction according to the biomass categories as described in Appendix B of the Covenant (*see also Table 1 in this report*), in which the actual percentage and the volume of biomass for which sustainable forest management has been demonstrated at plot level and at the pellet mill level is indicated and which sustainability certification schemes have been applied in this respect.
- An explanation about the way in which compliance with the extra-legally sustainability requirements is demonstrated as well as an explanation about the verification of the requirements for which compliance has not been demonstrated with certification.
- How many small forest owners (with corresponding acreage) have been approached for participation in the certification programme.
- How many training courses, supporting activities and other promoting activities have been organised.
- How many small forest owners have been certified since the start of the stimulation programme.
- An overview of organisations and experts that are involved in the implementation of the stimulation programme.

In the Covenant, it has also been agreed that the report – on the basis of the independent third party's judgement – indicates whether the ambitious path and minimum path, as agreed in Articles 3 and 4 of the Covenant, are achievable goals within the integrated business case that forms the basis of the SDE+ decision. The report will include, where possible and where applicable, advice to parties concerning meaningful intensification of the stimulation programme.

Annex B Questionnaire

1) Biomass used in 2018

	Quantity (in metric tons)
What was the total amount of biomass used?	
What was the amount of Category 1 biomass? ^a	
What was the amount of Category 2 biomass? ^a	
If no distinction can be made between Cat 1 and Cat 2 biomass, what was the combined amount?	
What was the amount of Category 3 biomass? ^a	
What was the amount of Category 4 biomass? ^a	
What was the amount of Category 5 biomass? ^a	
^a The following biomass categories are distinguished: <ul style="list-style-type: none"> — Category 1 is woody biomass (branches, tops, trees and primary felling residues and not mixed with or contaminated by foreign materials or substances) sourced directly from forests of 500 ha or larger. — Category 2 is woody biomass (branches, tops, trees and primary felling residues and not mixed with or contaminated by foreign materials or substances) sourced directly from forests of less than 500 ha. — Category 3 is biomass residues (branches, tops, trees) produced during the course of managing urban and rural green spaces and nature areas, other than forests designated for the preservation, restoration or enhancement of specific natural, recreational or aesthetic functions. — Category 4 is biomass residues directly from agricultural businesses. Short rotation crops are excluded, with the exception of the residues hereof. — Category 5 biomass is waste flows and residues from the agri-food and wood industry (secondary residual waste) and tertiary residual waste such as post-consumer wood waste. 	

2) Nature of biomass used

What was the nature of biomass used? And what were the corresponding biomass volumes?

Biomass category ^a	Pellets (in metric tons)	Chips (in metric tons)	Other (in metric tons)
Category 1 biomass			
Category 2 biomass			
If no distinction can be made between Cat 1 and Cat 2 biomass, what was the nature of the combined product?			
Category 3 biomass			
Category 4 biomass			
Category 5 biomass			
^a Categories are described under question 1.			

If Other, please specify:

3) Origin of the biomass used

What was the origin ^a of biomass used? And what were the corresponding biomass volumes?

Biomass category ^b	Nether-lands (in metric tons)	Europe (in metric tons)	USA (in metric tons)	Canada (in metric tons)	Other (in metric tons)
Category 1 biomass					
Category 2 biomass					
If no distinction can be made between Cat 1 and Cat 2 biomass, what was the origin of the combined product?					
Category 3 biomass					
Category 4 biomass					
Category 5 biomass					
^a The origin refers to the country where the original biomass (trees or agriculture crops) was produced, not the country where the biomass was possibly processed into the final identity (pellets, chips or other) in which it was used by the energy companies. ^b Categories are described under question 1.					

If Other, please specify:

4) Sustainability certification of biomass used

In which way sustainability certification ^a has been carried out? And what were the corresponding biomass volumes?

Biomass category ^b	Certified at forest level (in metric tons)	Certified at pellet mill or regional level (in metric tons)	Verified (in metric tons)	Not certified or verified (in metric tons)
Category 1 biomass				
Category 2 biomass				
If no distinction can be made between Cat 1 and Cat 2 biomass, what was the certification of the combined product?				
Category 3 biomass				
Category 4 biomass				
Category 5 biomass				
^a Sustainability certification refers here to certification for sustainable forest management (SFM). ^b Categories are described under question 1.				

5) Use of sustainability certification schemes for sustainable forest management (SFM) *

Which certification scheme(s) has (have) been used to demonstrate sustainability for the biomass categories applied? And what were the corresponding biomass volumes?

Scheme	Total (in metric tons)	Biomass category ^a	Forest level (in metric tons)	Pellet mill or regional level (in metric tons)
FSC				
PEFC				
SBP				
GGL				
Better Biomass				
SFI				
ATFS				
Other				

^a Biomass categories per description under question 1.

If Other, please specify:

Did a specific volume carry more than one certificate?

- Yes
 No

If so, please specify (in quantity and schemes):

6) Description of compliance with sustainability criteria that go beyond what is legally required

The sustainability criteria for biomass used in cofiring as agreed in the Covenant has been laid down in "[Besluit conformiteitsbeoordeling vaste biomassa voor energietoepassingen](#)" and "[Regeling conformiteitsbeoordeling vaste biomassa voor energietoepassingen](#)". Sustainability criteria that go beyond the legal requirements are considered any topic not covered by the sustainability criteria as defined in the 2016 SDE+ Ministerial Regulation (dated 24 February 2016).

Please specify possible compliance with sustainability criteria that go beyond what is legally required:

7) **Additional information** (voluntary)

a) What have been the greenhouse gas (GHG) emission savings?

Biomass category ^a	GHG emission savings (in % of CO ₂ -equivalent over fossil reference)
Category 1 biomass	
Category 2 biomass	
If no distinction can be made between Cat 1 and Cat 2 biomass, what was the GHG savings of the combined product?	
Category 3 biomass	
Category 4 biomass	
Category 5 biomass	
^a Categories are described under question 1.	

b) Which certification scheme(s) has (have) been used for Chain of Custody? And what were the corresponding biomass volumes?

Scheme	Total (in metric tons)	Biomass category ^a (in metric tons)	Forest level (in metric tons)	Pellet mill or regional level (in metric tons)
FSC				
PEFC				
SBP				
GGL				
Better Biomass				
SFI				
ATFS				
Other				
^a Categories are described under question 1.				

c) What other information would you like to report that is relevant to the objectives of the Covenant?

Please specify:

8) Signature

This Questionnaire has been completed by:

Name	
Company	
Function	
E-mail	
Phone	
Signature	
Date	