

Control Union Certification B.V. Evaluation of Futerra, Torrefação e Tecnologia – Transformação de Biomassa para Energia, S.A. Compliance with the SBP Framework: Public Summary Report

Main (Initial) Audit

www.sbp-cert.org



Completed in accordance with the CB Public Summary Report Template Version 1.4

*For further information on the SBP Framework and to view the full set of documentation see
www.sbp-cert.org*

Document history

Version 1.0: published 26 March 2015

Version 1.1: published 30 January 2018

Version 1.2: published 4 April 2018

Version 1.3: published 10 May 2018

Version 1.4: published 16 August 2018

© Copyright The Sustainable Biomass Program Limited 2018

Table of Contents

1	Overview
2	Scope of the evaluation and SBP certificate
3	Specific objective
4	SBP Standards utilised
4.1	SBP Standards utilised
4.2	SBP-endorsed Regional Risk Assessment
5	Description of Company, Supply Base and Forest Management
5.1	Description of Company
5.2	Description of Company's Supply Base
5.3	Detailed description of Supply Base
5.4	Chain of Custody system
6	Evaluation process
6.1	Timing of evaluation activities
6.2	Description of evaluation activities
6.3	Process for consultation with stakeholders
7	Results
7.1	Main strengths and weaknesses
7.2	Rigour of Supply Base Evaluation
7.3	Compilation of data on Greenhouse Gas emissions
7.4	Competency of involved personnel
7.5	Stakeholder feedback
7.6	Preconditions
8	Review of Company's Risk Assessments
9	Review of Company's mitigation measures
10	Non-conformities and observations
11	Certification recommendation

1 Overview

CB Name and contact: Control Union Certifications; Meeuwenlaan 4-6; P.O.Box 161, 8000AD Zwolle, Netherlands. certification@controlunion.com

Primary contact for SBP: Andrea Ferrazzo

Current report completion date: 01/Aug/2019

Report authors: Mr. Lennart Holm (Lead Auditor) and Mr. Hubert Jurczyszyn (Certifier)

Name of the Company: Futerra, Torrefação e Tecnologia – Transformação de Biomassa para Energia, S.A.

Company contact for SBP: Ana Castro

Certified Supply Base: Continental Portugal

SBP Certificate Code: SBP-06-31

Date of certificate issue: 20/Sep/2019

Date of certificate expiry: 19/Sep/2024

This report relates to the Main (Initial) Audit

2 Scope of the evaluation and SBP certificate

The certificate scope covers the production site in Campo, Valongo, Portugal. The Organisation holds an FSC® Chain of Custody certificate. Feedstock used in the biomass production originates from Portugal. A Supply Base Evaluation is included in the scope of the evaluation. The scope includes communication of Dynamic Batch Sustainability Data

The following SBP standards are applicable and form the scope of the evaluation and thus, the SBP certificate: Standard 1, Standard 2, Standard 4 and Standard 5. All material is either SBP compliant or SBP controlled through standard 1 SBE, FSC certified or FSC controlled materials.

SBP certificate: SBP-06-31

3 Specific objective

The specific objective of this evaluation was to confirm that the Biomass Producer's management system is capable of ensuring that all requirements of the specified SBP Standards are implemented across the entire scope of certification. The scope of the evaluation covered:

- Review of the BP's management procedures;
- Review of the production processes, production site visit;
- Review of SBP system control points and an analysis of the existing FSC CoC system;
- Interviews with responsible staff;
- Review of the records, calculations and conversion coefficients; and
- GHG data collection analysis - Instruction Document 5D: Dynamic Batch Sustainability Data v1.1 evaluation

4 SBP Standards utilised

4.1 SBP Standards utilised

Please select all SBP Standards used during this evaluation. All Standards can be accessed and downloaded from <https://sbp-cert.org/documents/standards-documents/standards>

- ☒ SBP Framework Standard 1: Feedstock Compliance Standard (Version 1.0, 26 March 2015)
- ☒ SBP Framework Standard 2: Verification of SBP-compliant Feedstock (Version 1.0, 26 March 2015)
- ☒ SBP Framework Standard 4: Chain of Custody (Version 1.0, 26 March 2015)
- ☒ SBP Framework Standard 5: Collection and Communication of Data (Version 1.0, 26 March 2015)

4.2 SBP-endorsed Regional Risk Assessment

Not applicable - No SBP endorsed Regional Risk Assessment was used for this assessment

5 Description of Company, Supply Base and Forest Management

5.1 Description of Company

Futerra is a pellet production company located in the village of Valongo in Portugal. Valongo is located near to the city of Porto. Futerra buys low-quality primary feedstock from over a hundred suppliers and secondary feedstock from around 10 sawmills. Around 30 feedstock suppliers are FSC certified but not all deliver the feedstock with an FSC claim. Futerra can produce white and black (torrefied) pellets. Primary feedstock accounts for approximately 90% of total feedstock supply.

Futerra has a production capacity of 120.000 tons of torrefied pellets and 55.000 tons of white pellets a year. It is the world's largest production facility of torrefied pellets. The plant is the first commercial scale torrefaction plant in Portugal. Considering the total amount of feedstock it processes, Futerra is the second largest company in the north of Portugal, after a pulp and paper company. The innovative technology makes it feasible to use low-grade forest residues and debris. This activity contributes to the regional economy and to effective forest fire fighting.

The supply base is Portugal.

Although the Supply Base consists of the whole of Portugal, at present Futerra is only procuring wood from the central and northern administrative regions of Portugal; in specific from:

- Viana do Castelo;
- Braga;
- Villa Real;
- Bragança;
- Porto;
- Aveiro;
- Viseu;
- Coimbra;
- Castelo Branco;
- Leiria;
- Santarem.

5.2 Description of Company's Supply Base

The supply base is Portugal.

Although the Supply Base consists of the whole of Portugal, at present Futerra is only procuring wood from the central and northern administrative regions of Portugal; in specific from:

- Viana do Castelo;
- Braga;
- Villa Real;
- Bragança;
- Porto;
- Aveiro;
- Viseu;
- Coimbra;
- Castelo Branco;
- Leiria;
- Santarem.

3.2 million ha of forests cover Portugal, corresponding to 35.4% of the country's land mass, followed by soil considered uncultivated (32%) and farmland (24%). Private property by landowners (83%), industrial companies (6%), and communities (Baldios, 8%) correspond to 3.1 million ha of forests. The forest area under communitarian management (Baldios) are subject to old customary and traditional rights and regulated by specific laws. In Portugal, there are, however, no indigenous people or specific minorities relying on the forests for their livelihood.

The following aspects related to forestry in Portugal are important to its sustainable management:

- 97% of the forest is in private ownership. More than half of the forests are very small parcels of only one or two ha (mainly in the northern and central regions). Regional forest management plans do not apply to small forests and woodlands;
- 47% of the land has no cadastral data and discrepancies in ownership rights complicate the procurement process. Moreover, many small woodland owners are not very interested in their properties (they can be living far away);
- Forest cover has increased from under 2.0 million to 3.2 million ha over the last 100 years and is dominated by introduced fast-growing species. Over the last decades, there is a tendency to replace semi-natural forests with fast-growing plantations.

Over the period 1995 – 2010 the forest decreased 4,6%. The net decrease of forest areas (150 611 ha) is mainly due to conversion to 'brush and pastures'. In addition, significant areas of forests were converted to urban use (28 000 ha). Data of different sources, for example the FAO, indicate a clear trend in decreasing forest area in Portugal of over 1% every 3 years the last 20 years or more.

Forest Management Plans (PGF) are mandatory for forest areas above a minimum area defined by Regional Forestry Management Plans (PROFs) as well as in Forest Intervention Areas (ZIF; 940 432 ha). In 2016, there were 1 680 000 ha under PGF from which 450 034 ha overlap the National Classified Areas Network. A felling manifest is required for commercial felling (including all thinning) of all tree species for industrial purposes, with a 30-day deadline after the operation is concluded. The Institute of Conservation of Nature and Forests (ICNF) is the national forest and conservation authority, with competencies on all forest, hunting and nature conservation affairs. ICNF also manages public forest areas and is involved in the management of community areas. Additionally, the Environmental Service of the National Republican Guard (SEPNA/ GNR) inspects environmental issues and natural resources in all private and public areas.

The felling phytosanitary manifest includes identification of the origin of the felling. Also, documentation for transportation mostly identifies the origin of the transport. This are the most common ways to trace the origin of the primary feedstock. However, there are still many areas in Portugal without cadastral data, complicating the matter. Considering the relatively positive Corruption Perception Index (2018) of Portugal (CPI 64) documents, such as invoices and transport documents, can be considered reliable sources of information.

Portuguese forests are 69% deciduous, and 31% coniferous. Regarding tree species, the most relevant are (ICNF, 2013):

- Eucalyptus (*Eucalyptus globulus* and other spp.), 26% of forest area.
Originally from Tasmania, eucalyptus became one of the most planted trees in Portugal. Since the 1980's there is great controversy about the negative effects of these trees on soil fertility, water scarcity, and biodiversity, which in 1988 and '89 resulted in the implementation of a few laws that

restricts the increase of monoculture plantation of this species. In 2017 a law was enforced that forbids the conversion of forests to eucalyptus stands.

- Maritime pine (*Pinus pinaster*), 23% of forest area.
This species was chosen in the large afforestation campaigns carried out during the nineteenth century, due to its ability to adapt to poor and rocky soil. In addition, it regenerates easily. Its timber is widely used commercially;
- The cork oak (*Quercus suber*), 23% of forest area.
This is an evergreen indigenous species, typical of Mediterranean climate forests. Their presence can be found throughout the country. The cork oak is often seen as the 'national tree' of Portugal. Portugal is the leading producer and exporter of cork.
- Holm oak (*Quercus rotundifolia*), 11% of forest area.
An evergreen tree of large size. It can be found throughout the Mediterranean climate. It can grow at any type of terrain except of those with poor drainage and or saline nature, but prefers fertile soil, deep and of loamy nature. The wood is well suitable for charcoal and firewood production.
- Stone pine (*Pinus pinea*), 6% of forest area.
Stone pine is mainly used to produce pine nuts. The residues from thinning and pruning are used for pellet production. Stone pine can mainly be found in the south.

The national legislation of Portugal does list protected tree species, and, for example, it is forbidden to cut any cork oaks (*Quercus suber*), and holm oaks (*Quercus ilix* / *Quercus rotundifolia*; protective measures by Law N°.155/2004) and European holly (*Ilex aquifolium*; protected by Law N°. 423/89).

CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) lists a considerable number of protected plants for Portugal. However, the list does not include any trees. The 'Red List' of the IUCN (International Union for Conservation of Nature and Natural Resources) indicates hundreds of plants for the continental territory of Portugal, but also does not include any trees either. Specialists reckon 49 of these plant species to the relevant ones for forestry.

Climate change, the occurrence of extreme meteorological events, in combination with large areas of insufficiently managed forests (especially eucalyptus forests) has increased the phenomenon of devastating forest fires. Portugal accounts for the largest and the most forest fires in Europe. Climate change may also induce pests and diseases due to stress in host plants. In Portugal, phytosanitary problems affect mainly the cork oak and holm oak, showing its decline. The loss of vitality and the mortality of maritime pine is mainly related with the Wood Pine Nematode (WPN), detected in Portugal since 1999.

The forestry industry of Portugal is vertically integrated to derive maximum economic benefit from the three main forest tree species – maritime pine, eucalyptus and cork oak. Maritime pine and eucalyptus dominate the timber-producing regions. Forests of cork oak are generally multifunctional.

Goods produced by way of forestry activities sustain an important industrial chain based on natural resources that in turn supports a strong export sector. Portugal, therefore, considers forests and forestry products as an area of crucial importance to its economy. The forest sector has a significant impact on its GDP. Forest sector products contribute to around 10% of the national export. Forests are also the base of an economic sector which generates around 100 000 jobs (4% of the employable population).

5.3 Detailed description of Supply Base

- | | |
|-------------------------------------|---|
| a. Total Supply Base area (ha): | 3,2 million ha |
| b. Tenure by type (ha): | Private: 3,1 million ha (97%, including 8% community managed)
Public: 0,1 million ha |
| c. Forest by type (ha): | Temperate Forest: 3,2 million ha |
| d. Forest by management type (ha): | Plantations: 1,8 million ha;
Managed natural: 1,4 million ha |
| e. Certified forest by scheme (ha): | FSC: 434 thousand ha (2019)

PEFC 277 thousand ha (2019) |

A quantitative description of the supply base can be found in the company's Supply Base Report.

5.4 Chain of Custody system

The Organisation holds valid FSC Chain of Custody certificate. Valid FSC system description and other documents exist. Critical control points of the FSC CoC system were evaluated also during SBP audit. The Organisation has implemented FSC credit system. FSC Credit system is used for materials received as FSC certified, FSC Controlled wood and feedstock verified according to the Organisation's own Controlled wood verification system, covering Portugal. Feedstock whose origin cannot be verified as per the established Due Diligence system, will be considered as Non-Controlled and will not be included in the production of certified products nor supplied SBP controlled. Supplier list is maintained. After the reception, incoming feedstock is unloaded into piles according to type of feedstock and load is registered into the recordkeeping system. All input material is weighted and recorded in tonnes. For the credit account purposed the volume of feedstock is recalculated by using the conversion factor of the production, FSC credit account is updated once a week: data about received raw materials by FSC certification status and volume of sold pellets are recorded. In case of the FSC and/or SBP sales, the volume of sold pellets is withdrawn from the credit account. Based on the credit account management the proportion of the SBP-compliant and SBP-controlled biomass is calculated and all records are kept.

6 Evaluation process

6.1 Timing of evaluation activities

The audit occurred between July 23-26, 2019 by the above mentioned audit team. This report is the result of the findings of a certification evaluation carried out by an independent lead auditor representing Control Union Certifications. The purpose of the assessment was to evaluate the compliance of the client with respect to the standards used within the scope of the certificate.

Activity	Site	Date/Time
Tuesday 23-07-2019		
Opening meeting Agreement on Scope	Futerra	
Business integrity, social, health and safety requirements Logo/Trademark use Complaints procedures Introduction into Supply Base Supply Base report Suppliers Checking the Supply Base Evaluation		
Wednesday 24-07-2019		
Suppliers certificates Incoming material claims Incoming raw material registration Tour of the facility: - Receiving of materials - Wood Yard - Equipment used Visit Port of Leixões Final discussion / days closing meeting		
Thursday 25-07-2019		

Day's Opening meeting Field verification of SBE	Sites: Mira, Brenha and Cabeça Santa	
Friday 26-07-2019		
Day's Opening meeting GHG data registrations Dynamic Batch Sustainability Chain of Custody registrations Verification of missing items Report writing closing meeting	Futerra	

• Names and affiliations of people interviewed	
Name:	Affiliation:
João Paulo Baltazar	Futerra
Paulo Estevez	Futerra
Joana Crisóstomo	Futerra
Ana Castro	Futerra
Gloria Rafael	Futerra
Carlos Costa	Futerra
Rens Hartkamp	Biomass Consultants
João Valdemar Fernandes	Navex
Júlio Fernandes	TCGL
Artur Moraes	TCGL
José Santos	TCGL
Luis Miguel	Angulo Verde
Nelson Ferreira Pinto	Bioflorestal
Vitor Rei	Bioflorestal
Lionel Santos	Clamadeiras
José Manuel Santos	J.M. Santos Unipessoal Lda

6.2 Description of evaluation activities

The audit consisted of an opening meeting, during which the scope was confirmed. The auditor also explained the methods to be employed during the audit. After this introduction, all relevant requirements of the applicable SBP standard(s) were verified on compliance through the use of a report template and checklists. The audit was completed by filling in the audit report and discussing the audit results. Critical Control points were evaluated and found to be sufficiently managed. During the closing meeting it was also discussed how evidence can be submitted of corrective action with respect to potential non-conformities that may be identified during the audit

6.3 Process for consultation with stakeholders

Consultation with stakeholders' was conducted by Futerra on 24/06/2019 for a deadline to submit comments by 24/07/2019.

Consultation with stakeholders' was conducted by Control Union on 24/07/2019.

The process for stakeholder consultation consisted of sending direct email to different stakeholder categories: state institutions, local NGOs, authorities, government bodies, forest owners associations, academic and research institutions. All stakeholders are recorded on the SBP_Stakeholders_Data_base.xls

No comments received.

7 Results

7.1 Main strengths and weaknesses

The audit of Futerra demonstrated a good level of compliance with the required criteria of Standard 1, 2, 4 and 5. There was reasonable evidence provided to support compliance where a Non-Conformity was not detected.

The existence of a FSC Chain of Custody system in combination with the SBP are considered a strength with respect to Futerra's overall conformity with the relevant SBP standards.

Weaknesses: Futerra is a newly commissioned plant, production is scheduled to start in August 2019. Feedstock procurement data exist for a period of less than 4 months, while production data was based on a theoretical analysis. Production is scheduled to start in August 2019.

7.2 Rigour of Supply Base Evaluation

Futerra embarked on the development of a detailed Supply Base Evaluation which includes a clear description of their Supply Base Area. The geographical scope of the SBE is Continental Portugal. The SBE was developed in joint efforts between internal personnel and a qualified consultant, using credible data sources. Futerra's management and monitoring systems are designed to ensure compliance with applicable laws and regulations. Risk was designated low for all core Indicators, with the exception of 14 Indicators which were designated as specified risk. Futerra has developed additional controls and mitigation measures to manage these risks. After the risk assessment was completed, mitigation measures were proposed and consulted with stakeholders. The stakeholder consultation process involved consultations to key stakeholders with regard to information on SBP certification, SBP risk assessment and supply base report, by communicating this via electronic email. As no comments were received, Futerra has implemented the mitigation measures for the specified risk indicators as initially proposed. The risk mitigation measures have been designed and implemented planned in cooperation with acknowledged experts and external consultants in relevant fields.

7.3 Collection and Communication of Data

Futerra is a newly commissioned plant, production is scheduled to start in August 2019. Feedstock procurement data exist for a period of less than 4 months, while production data was based on a theoretical analysis. Production is scheduled to start in August 2019. However, the SAR has been completed according to the standard and all data provided by the BP were verified for their consistency and accuracy.

7.4 Competency of involved personnel

Internal staff members are involved in the SBP system management and implementation. All interviewed responsible staff demonstrated awareness of their responsibilities within SBP system. The key responsible person for developing the SBE system was an external consultant with experience in producing SBP systems and carries a PhD in a relevant field. All involved personnel, including responsible staff at suppliers

and sub-suppliers have demonstrated good knowledge in relevant fields (recognition and identification of HCVF, familiarity with health and safety requirements, timber origin verification) during the site visits. Relevant certificates and diplomas were presented during the assessment and scope change audits. Qualification requirements for personnel involved in the SBE system are provided in documented procedures of the BP. In overall, auditors evaluate the competency of main responsible staff to be sufficient for implementing the SBP system with both primary and secondary material sourced within the SBE. This has been based on interviews, review of qualification documents, training records and set of procedures and documents that were composed for the SBP system as well as field observations during the assessment and audits.

7.5 Stakeholder feedback

See 6.3 above

7.6 Preconditions

N/A, no preconditions.

8 Review of Company's Risk Assessments

Describe how the Certification Body assessed risk for the Indicators. Summarise the CB's final risk ratings in Table 1, together with the Company's final risk ratings. Default for each indicator is 'Low', click on the rating to change. Note: this summary should show the risk ratings before AND after the SVP has been performed and after any mitigation measures have been implemented.

Control Union assessed the risk for each Indicator using the guidance in Section 11 of SBP Framework Standard 2: Verification of SBP-compliant Feedstock.

The risk assessment has been performed with the use of a technical expert. Determining the risk rating the likely impact of a non-compliance together with the probability of that noncompliance arising was used. and evaluated risk at both regional and the individual forest.

1.2.1: Specified risk for areas without cadastral data.

1.4.1: These indicators are low risk, nevertheless, verification of the origin and legality of the feedstock are essential.

2.1.1 and 2.1.2: HCV 1 and 3 are specified risk. Social and cultural aspects regarding Sustainable Forest Management are considered low risk but are checked during the evaluation of best practises.

2.4.1: The risk of impacts of harvest operations on the forests and their surroundings (also considering local residents and entrepreneurs) is present, but considered low.

2.4.2: Specified risk on forest fire fighting.

2.6.1: Plays an important role in reducing the risks related to social aspects of SFM.

2.9.1: Of main importance is the negative trend in forest cover (carbon stocks) over the last 20 years, due to the conversion to agricultural and urban lands.

Table 1. Final risk ratings of Indicators as determined BEFORE the SVP and any mitigation measures.

Indicator	Risk rating (Low or Specified)	
	Producer	CB
1.1.1	Low	Low
1.1.2	Low	Low
1.1.3	Low	Low
1.2.1	Specified	Specified
1.3.1	Low	Low
1.4.1	Low	Low
1.5.1	Low	Low
1.6.1	Low	Low

Indicator	Risk rating (Low or Specified)	
	Producer	CB
2.3.3	Low	Low
2.4.1	Low	Low
2.4.2	Specified	Specified
2.4.3	Low	Low
2.5.1	Low	Low
2.5.2	Low	Low
2.6.1	Specified	Specified
2.7.1	Low	Low

2.1.1	Specified	Specified
2.1.2	Specified	Specified
2.1.3	Specified	Specified
2.2.1	Specified	Specified
2.2.2	Specified	Specified
2.2.3	Specified	Specified
2.2.4	Specified	Specified
2.2.5	Low	Low
2.2.6	Specified	Specified
2.2.7	Low	Low
2.2.8	Low	Low
2.2.9	Low	Low
2.3.1	Low	Low
2.3.2	Specified	Specified

2.7.2	Low	Low
2.7.3	Low	Low
2.7.4	Low	Low
2.7.5	Low	Low
2.8.1	Specified	Specified
2.9.1	Specified	Specified
2.9.2	Low	Low
2.10.1	Low	Low

Table 2. Final risk ratings of Indicators as determined AFTER the SVP and any mitigation measures.

Indicator	Risk rating (Low or Specified)	
	Producer	CB
1.1.1	Low	Low
1.1.2	Low	Low
1.1.3	Low	Low
1.2.1	Low	Low
1.3.1	Low	Low
1.4.1	Low	Low
1.5.1	Low	Low
1.6.1	Low	Low
2.1.1	Low	Low
2.1.2	Low	Low
2.1.3	Low	Low
2.2.1	Low	Low
2.2.2	Low	Low
2.2.3	Low	Low
2.2.4	Low	Low
2.2.5	Low	Low
2.2.6	Low	Low

Indicator	Risk rating (Low or Specified)	
	Producer	CB
2.3.3	Low	Low
2.4.1	Low	Low
2.4.2	Low	Low
2.4.3	Low	Low
2.5.1	Low	Low
2.5.2	Low	Low
2.6.1	Low	Low
2.7.1	Low	Low
2.7.2	Low	Low
2.7.3	Low	Low
2.7.4	Low	Low
2.7.5	Low	Low
2.8.1	Low	Low
2.9.1	Low	Low
2.9.2	Low	Low
2.10.1	Low	Low

2.2.7	Low	Low
2.2.8	Low	Low
2.2.9	Low	Low
2.3.1	Low	Low
2.3.2	Low	Low

The mitigation measures per indicator are given in the table below. Subsequently, information is given on the management system, implementing the mitigation measures regarding the sustainability indicators.

CUC Evaluation of Futerra, Torrefação e Tecnologia – Transformação de Biomassa para Energia, S.A.:
Public Summary Report, Main (Initial) Audit Page 17

	Futerra does not buy wood from wood lands, of which the owner rights are unclear. Any unclarity/dispute concerning the ownership of the wood needs to be solved first. Considering forestry in the north of Portugal, the fact that there are little disputes / complaints does not guarantee the wood is legal / the seller is indeed the owner of all the plots harvested. For example, areas can become ownerless and abandoned and some could try to take advantage of the situation before the land is impounded by the government.
2.1.1	<i>The Biomass Producer has implemented appropriate control systems and procedures for verifying that forests and other areas with high conservation values are identified and mapped.</i>
HCV 1 & 3	The control system for feedstock, which also includes regular inspections of suppliers, is duly implemented. All used material is traceable to its origin through the harvest manifests and transport guides. All suppliers have to comply with the laws in force, which are supervised by the Tax Authority and the ICNF (Please see the file 'Plano Regional de Ordenamento Florestal' 'Documentation point 4 'cartografia síntese' (ICNF) for each region). Some HCV areas are designated as protected and classified areas at the national or EU level (Natura 2000). There are also smaller areas or biotopes important to biodiversity, or classified as priority species' habitats. Futerra identifies and maps areas with high conservation values (HCVs) before the harvest comences. HCV 1 and 3 were assessed to have a specified risk. Extra effort is needed to identify and map these values in practice on paper, regarding the forest plot. Internet sources, as well as the local situation needs to be studied. Some HCV areas are designated as protected and classified areas at the national or EU level (Natura 2000). There are also smaller areas or biotopes important to biodiversity or classified as priority species' habitats. Habitats and species vulnerable to forestry operations are identified within the scope of Reed Natura2000 and Habitats and Birds Directive reports.
Mitigation measures	Futerra ensures: • Mapping of the harvesting plot; • Harvesting according to best practices in sustainable forest management; • Cleaning of waste from plantations; • Tree species (no genetically modified trees). Steps taken: • Study publicly available sources (internet sites) and other information regarding the plots were harvesting operations are planned and their surroundings; • Inform feedstock suppliers on found results regarding possible risks in front; • Onsite assessment of the plots and their surroundings prior to harvesting, measures are taken for example, when habitats are found; • Development of adaptions to the harvesting plans, if needed. Below the main sources of information, used to prepare the identification of these values for our harvesting teams. The forestry specialist evaluate every plot on which the SBE is conducted before the harvesting operations begins. Futerra inspects the suppliers and harvesting areas.

	HCV 1 – Species diversity There is a specified risk that forest operations on private and communitarian grounds and public areas not managed by ICNF could harm species diversity. Species diversity is evaluated and recorded before harvesting operations commence. Caution and best practises are applied. Special attention is given to the National System of Classified Areas (SNAC) and to the Important Bird and Biodiversity Areas (IBAs). See also below, indicator 2.2.4 <i>Some information sources:</i> ➤ Classified areas: http://www.icnf.pt/portal/naturaclas/cart ➤ Protected area plans: http://www.icnf.pt/portal/naturaclas/ordgest/poap ➤ Endangered species: http://www.icnf.pt/portal/naturaclas/patrinatur/especies ➤ Endemic species: http://naturdata.com/index.php?option=com_content&view=article&id=78&Itemid=60 ➤ Digital mapping information from the Manual das Linhas Eléctricas [Manual of Electric Lines] (ICNB 2008) ➤ Important Bird Areas of Portugal at: http://ibas-terrestres.spea.pt/ ➤ Regional Forest Plans (PROF): http://www.icnf.pt/portal/florestas/profs HCV 3 – Ecosystems and habitats There is a specified risk that forest operations on private and communitarian grounds and public areas not managed by ICNF could harm ecosystems and habitats. In these situations, Futerra demands to evaluate the environmental impacts (on Ecosystems and habitats) of the forest operations before the forest operations commence. Caution and best practises are applied. See also below, indicator 2.2.3. <i>Some information sources:</i> ➤ Habitats Directive (2007-2012) ➤ Rede Natura 2000 database: http://www.icnf.pt/portal/naturaclas/rn2000 ➤ Important Bird Areas of Portugal at: http://ibas-terrestres.spea.pt/ ➤ Convention on Biological Diversity (CBD) via DL no. 21/93, dated 29 June.
2.1.2	<i>The Biomass Producer has implemented appropriate control systems and procedures to identify and address potential threats to forests and other areas with high conservation values from forest management activities.</i>
HCV 1 & 3	There is a specified risk that forest operations on private and communitarian grounds and public areas not managed by ICNF could harm species diversity, ecosystems and habitats. Species diversity is evaluated and recorded before harvesting operations commence. Special attention is given to the National System of Classified Areas (SNAC) and to the Important Bird and Biodiversity Areas (IBAs). Futerra identifies and addresses potential threats to forests and other areas with high conservation values (HCVs). The control system for feedstock, which also includes regular inspections of suppliers, is duly implemented. Some HCV areas are designated as protected and classified areas at the national or EU level (Natura 2000). There are also smaller areas and biotopes important to biodiversity, which can be classified as priority species' habitats. Steps taken: • Assessment, evaluation and 'SBE approval' of suppliers • Desk Assessment of possible impacts of harvesting operations, regarding Publicly available information from credible third parties;

Mitigation measures	• Training of suppliers on identification of forests with HCVs, and methods to protect HCVs; • Identification and mapping of protected species, habitats and key ecosystems on the plot before harvesting; • Development of adaptations to the harvesting plans, if needed; • Harvesting according to best practices in sustainable forest management; See also below, indicator 2.2.4 and indicator 2.2.3.
2.1.3	<i>The Biomass Producer has implemented appropriate control systems and procedures for verifying that feedstock is not sourced from forests converted to production plantation forest or non-forest lands after January 2008.</i>
Mitigation measures	Futerra considers all pine stands as forests and eucalyptus and poplar stands as plantations. Futerra checks if forests have been changed to eucalyptus or poplar plantations after 2008. When forest is converted to agricultural land or a plantation, or when land use change (conversion) is planned, the feedstock is not categorized as SBP compliant. When a eucalyptus or poplar plantation are cut, the history of the plantation is investigated: • The year of conversion to plantation (if it was converted after 2008). If needed, interviews with stakeholders and residents are taken and the plot is searched for tree stumps. • Was it a forest before being converted to plantation? This is dealt with in the Feedstock Supplier Declaration and addressed in the field operations checklist.
2.2.1	<i>The Biomass Producer has implemented appropriate control systems and procedures to verify that feedstock is sourced from forests where there is appropriate assessment of impacts, and planning, implementation and monitoring to minimise them.</i>
Mitigation measures	In case no forest plan is available (no PROF, PGF ZIF, PUB, SNAC, as well as no PEFC or FSC certification), or a plan is available but does not apply to a small holder, an additional assessment of environmental impacts is made and recorded before harvest. Special attention is given to plots smaller than the minimum threshold for the mandatory Forest Management Plan (PROF) and outside the SNAC. Before harvesting operations commence, the plot is visited and evaluated: • The possible economical, ecological and social impact of the forest operations, including its surroundings. Harvesting plans can be changed to avoid negative impacts; • Was the forest management conform the law in the past (has the forest been cleaned according to the law in the past); • Specific Plans for Forest Intervention (PEIF) are studied for specific measures for the intervention on forest areas with major biotic problems (e.g.: invasive species, plagues or diseases) or abiotic (e.g.: high risk of forest fire); • Potential impacts of operations on ecosystems and biodiversity are identified. Impacts inside and outside the area of operation are considered, for example downstream; • Impacts are monitored and monitoring results are used to improve operational practices. Indicators 2.2.2, 2.2.3, 2.2.4, 2.2.6, and 2.4.2 include relevant management measures which are checked.

2.2.2	<i>The Biomass Producer has implemented appropriate control systems and procedures for verifying that feedstock is sourced from forests where management maintains or improves soil quality (CPET S5b).</i>
Mitigation measures	Before harvesting operations commence the plot is evaluated. Best forestry practises are applied. Best forestry practices apply: • Were needed, considering the soil and groundwater level, only selective cuttings and small clear cuts of maximally 5 ha are planned; • Regeneration focusses on tree species that maintain or improve soil quality; • Leave nutrients in the forests, mainly the green fraction of forest residues less or equal to 3 cm (on the other hand other forest residues need to be cleared to prevent forest fires. • Do not operate near-water areas. • Fertilization of the ground, when needed and possible. On dry locations selective cuttings are often preferable, because the ground gets less direct impact of the sun and the forest can maintain soil quality and regenerate naturally. Poor soil quality can lead to erosion and other problems. Therefore, this indicator is related to indicator 2.2.6.
2.2.3 & 2.2.4	<i>The Biomass Producer has implemented appropriate control systems and procedures to ensure that key ecosystems and habitats are conserved or set aside in their natural state (CPET S8b). & The Biomass Producer has implemented appropriate control systems and procedures to ensure that biodiversity is protected (CPET S5b).</i>
Mitigation measures	Futerra prepares (publicly available) data on ecosystems and habitats (see above 2.1.1 on mapping and 2.1.2 on identifying and addressing potential threats). This information is given to all feedstock suppliers. Feedstock suppliers are trained to recognise key ecosystems and habitats. Steps in risk mitigation: • Training of suppliers, assessing and selecting 'SBE approved' suppliers; • Desk assessment (before harvesting operations commence) of key ecosystems and habitats: ○ All classified areas: - National Network of Protected Areas; - Special Areas of Conservation (SAC); - Special Protection Areas (SPA); - Ramsar sites; - Important Bird Areas (IBA); ○ Priority habitats in Natura 2000 network; ○ Areas where threatened species occur; ○ Areas where endemic species of the Iberian Peninsula occur; ○ Areas where seasonal concentrations of species occur; ○ Large landscape level forests; ○ Important areas for watershed protection; • Forest plot inspection prior harvesting; • Mapping of the harvesting plot, indicating key ecosystems, habitats and objects of importance to biodiversity; making photos prior to harvesting. • Best forestry practices, including measures to conserve and increase biodiversity (for example, standing dead wood). • Change of operational plan, if necessary.

2.2.6	<i>The Biomass Producer has implemented appropriate control systems and procedures to verify that negative impacts on ground water, surface water and water downstream from forest management are minimised (CPET S5b).</i>
Mitigation measures	Futerra monitors the harvesting operations of its feedstock suppliers. Best practices are required to comply with the SBE program requirements. • Desk assessment (before harvesting operations commence) of Important areas for watershed protection ○ Cork oak and holm oak savannas located in areas with an aquifer recharge rate of over 175 mm/year ○ Aquifers • The plots and the surroundings (hill slopes and streams) are inspected on: ○ Runoff problems (regarding the landscape, onsite and in the surroundings); ○ Groundwater level problems (too high or too low); ○ Protection of riversides and (lake) coastlines; • In areas vulnerable to water damage, the maximal contiguous clear cut area is 5 ha; • Best forestry practices; Feedstock suppliers are trained to not contaminate ground water and to plan forest management operations that protect the soil, forest and surroundings from surface water runoff; Runoff of elements of fertilizers and pesticides into the surrounding environment.
2.3.2	<i>Adequate training is provided for all personnel, including employees and contractors (CPET S6d).</i>
Mitigation measures	Futerra trains its personnel on all relevant aspects and demands the same from its feedstock suppliers. • Training records obligatory according to legislation and records of qualification are collected during supplier qualification process and checked during supplier inspections; • Training conducted by Futerra in several fields, including identification of key ecosystems, habitats and species biodiversity (annually and additionally based on the results of the plot assessments); • Training on best forest management practices. • Futerra performs supplier inspections: the training records, (new) workforce, and the hiring of specialists. The level of knowledge of personnel is inspected during site visits.
2.4.2	<i>The Biomass Producer has implemented appropriate control systems and procedures for verifying that natural processes, such as fires, pests and diseases are managed appropriately (CPET S7b).</i>
Mitigation measures	On the above information specified risk is assessed on the fire management at forest level. Visual inspection of the plot before harvesting (checklists). Checked is if the plot was managed well on fire protection in the past. • Investigation of PMDFCI (Municipal Forest Fire Protection, Municipal de Defesa da Floresta Contra Incêndios); • Visual inspection of the plot before harvesting; • Implementation of forest fire fighting measures according to law; • Best forest practices; • Monitoring performance.
2.6.1	<i>Appropriate mechanisms are in place for resolving grievances and disputes, including those relating to tenure and use rights, to forest management practices and to work conditions.</i>
Mitigation measures	Such mechanisms play an important function as a safety net for sufficient performance on social and cultural aspects of Sustainable Forest Management and in complying with other indicators of SBP standard 1. • The aim is to solve grievances and disputes before the harvesting operations commence (or not to buy from the disputed plots).

	• Futerra makes clear to employees and stakeholders that any complaint or comment related to feedstock supply is taken very seriously, to ensure sufficient performance on legality and social aspects of Sustainable Forest Management. • Futerra has a complaint procedure and keeps records. The feedstock suppliers are also required (signed supplier declaration) to actively implement a complaint procedure and keep records. • Futerra monitors the harvesting operations of its feedstock suppliers and checks their records on Complaints and Comments. Proactive interviews with relevant stakeholders, such as land owners on submitted comments (orally and in writing), and assesses if complaints were dealt with sufficiently. • The results of the inspections have direct influence on the 'SBE program approved' status of feedstock suppliers.
2.8.1	<i>The Biomass Producer has implemented appropriate control systems and procedures for verifying that appropriate safeguards are put in place to protect the health and safety of forest workers (CPET S12).</i>
Mitigation measures	Futerra has a control system and adequate procedures on the health and safety of forest workers. Futerra demands the same from its feedstock suppliers and checks the health safety of harvesting personnel during its monitoring (administrative and field) inspections. • Supplier qualification process and inspections of the supplier's administration: ○ Insurances and aptitude forms; ○ Social Security; ○ Present workforce and training (new) personnel; ○ Health and safety procedures; ○ Training records and hiring of specialists; ○ Records of Personal Protection Equipment (PPE) distribution; ○ Records of machinery safety tools and equipment on documental register; ○ Medical record for employment. • Field inspection supplier: ○ Protective equipment use; ○ Medical kit; ○ Fire extinguisher; ○ Respect of safety distances; • Level of knowledge of personnel.
2.9.1	<i>Feedstock is not sourced from areas that had high carbon stocks in January 2008 and no longer have those high carbon stocks.</i>
Mitigation measures	Wood from forests converted to plantations, as also wood lands that are converted to non-forest use are not considered SBP compliant. Wood from forests which are not managed according to best practices and which do not safeguard the carbon stocks above (regeneration of forests) and in the ground (degradation of grounds) are not considered SBP compliant. See also indicator 2.2.2. Non-compliance with this indicator can also result in not procuring the feedstock. • Desk assessment, monitoring, and identification – High-risk and 'Important areas for carbon storage'; • Field inspections and possible adaptations of forest management plans; • Limitation of harvesting operations on 'Important areas for carbon storage'. See also indicator 2.1.3.

10 Non-conformities and observations

No nonconformities were detected.

11 Certification decision

Based on the auditor's recommendation and the Certification Body's quality review, the following certification decision is taken:	
Certification decision:	Certification approved
Certification decision by (name of the person):	Hubert Jurczyszyn
Date of decision:	20/Sep/2019
Other comments:	<i>Click or tap here to enter text.</i>