

NEPCon Evaluation of Skeena Bioenergy Ltd. Compliance with the SBP Framework: Public Summary Report

Main (Initial) Audit

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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

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1 Overview

CB Name and contact:	NEPCon OÜ, Filosoofi 31, 50108 Tartu, Estonia
Primary contact for SBP:	Ondrej Tarabus ot@nepcon.net, +420 606 730 382
Current report completion date:	16/Apr/2019
Report author(s):	Ģirts Karss
Name of the Company:	Skeena Bioenergy, 5330 Highway 16, Terrace, BC V8G 0C6, Canada
Company contact for SBP:	Roger Keery, tel. 1-604-800-5990, roger.keery@skeenasawmills.com
Certified Supply Base:	Canada, the province of British Columbia
SBP Certificate Code:	SBP-07-21
Date of certificate issue:	29/Apr/2019
Date of certificate expiry:	28/Apr/2024

This report relates to the Main (Initial) Audit

2 Scope of the evaluation and SBP certificate

The certificate scope covers Skeena Bioenergy production site and office in 5330 Highway 16, Terrace, BC V8G 0C6, Canada

The Organisation holds PEFC Chain of Custody certificate NC-PEFC/COC-053674. The certificate covers both PEFC certification as well as PEFC Controlled Sources certification and controlled wood verification system for feedstock.

Skeena Bioenergy sources raw material (only secondary feedstock) from one supplier in the province of British Columbia, Canada. The feedstock itself originates in the province of British Columbia.

It is planned the BP will source all secondary feedstock as PEFC certified or PEFC Controlled Sources.

The BP is planning to sell pellets on DAP conditions in a railyard nearby the production site. No storage of pellets under control of the organization is envisaged.

The scope of the SBP certificate covers: production of wood pellets, for use in energy production. The scope of the certificate does not include Supply Base Evaluation.

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 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 planned production processes,
- Production and loading site visits;
- Review of PEFC Chain of Custody system control points, analysis of the PEFC CoC system;
- Interviews with responsible staff and review of records of the system;
- Review of the records, calculations and conversion coefficients;
- analysis of GHG data collection and reporting system;

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)

SBP instruction documents 5A, 5B and 5C version 1.1.

<http://www.sbp-cert.org/documents>

4.2 SBP-endorsed Regional Risk Assessment

Not applicable. Supply Base Evaluation is not covered by the Scope of the Evaluation

5 Description of Company, Supply Base and Forest Management

5.1 Description of Company

Skeena Bioenergy operates a pellet mill and acts as a Biomass Producer with production of wood pellets from secondary feedstock in the town of Terrace, British Columbia, Canada (5330 Highway 16, Terrace, BC V8G 0C6, Canada). At the time of the SBP assessment audit the biomass processing plant is in the process of commissioning and has not yet started the operation. The feedstock for the production of wood pellets is sourced from a sawmill located next to the pellet mill. The feedstock includes material from a Supply Base consisting areas fully contained within the province of British Columbia.

The BP is planning to source secondary feedstock for the pellet production. The following type of feedstock is planned: secondary feedstock containing wood industry residues: sawdust and bark. No tertiary feedstock (dry sawdust with shavings) is planned to use as feedstock, but minor admixture of tertiary feedstock is expected. It is planned to extend the range of suppliers and include several more suppliers located in the province of British Columbia.

In the beginning of plant operation, the BP is planning to source all feedstock with PEFC certification claim only. The organisation is also considering sourcing controlled feedstock within the organization's PEFC Due Diligence system.

The scope of the certification does not include the use of storage sites, but it is expected that the organization will operate a logistics site. Feedstock to the biomass production plant is delivered by road transport – bulk carrier trucks. Ready-made pellets will be transported by bulk carrier trucks to logistics site where pellets will be loaded onto railway cars.

The information about feedstock origin is expected to be available from agreements signed with all feedstock suppliers with requirement to provide the access to the information about origin.

The BP is implementing PEFC percentage volume system. The amount of the PEFC certified biomass produced according to PEFC volume credit system can be sold as SBP-compliant biomass.

5.2 Description of Company's Supply Base

The feedstock for the production of wood pellets is sourced from one primary wood processor, located next to the BP in the Terrace, province of British Columbia. The feedstock includes material from a Supply Base consisting of defined area within the province of British Columbia.

All forests within the supply base area are classified the Temperate Conifer Forest region and none of the forest types include classified CITES or IUCN species. Certain fauna and plant species are listed as either endangered or threatened in the supply base by federal and provincial sources. Forest operations are bound by provincial and federal legislation associated with forestry practices including listed species at risk. This legal framework is enforced to prevent and deter illegal harvesting within protected areas and unadopted practices associated with species at risk habitat.

Characterisation of the Supply Base Area: 24 271 271 ha of forest..

Tenure by type (ha): privately owned/public/community concession

- i. Crown Land: **23 879 049 ha**
- ii. Federal Land: **50 479 ha**
- iii. Private Land: **341 259 ha**

iv. Unknown: **483 ha**

NOTE: Within the above listed 'tenure type' – the following protected areas (**5,975,731 ha**) exist:

i. BC Parks, Protected Areas, Ecoreserves – **3 447 294 ha**

ii. NGO Conservation Areas (Fee Simple Properties) – **1 357 ha**

iii. Conservancy Areas: **2 381 492 ha**

iv. Conservation Lands: **145 588 ha**

Forest by type (ha):

I. Biome:

i. Boreal Forests/Taiga à **10 098 765 ha**

ii. Temperate Coniferous à **10 601 176 ha**

iii. Tundra à **2 519 524 ha**

II. Ecoregions:

i. Alaska-St. Elias Range tundra: **468 790 ha**

ii. British Columbia mainland coastal forests: **7 293 133 ha**

iii. Cascade Mountains leeward forests: **116 012 ha**

iv. Central British Columbia Mountain forests: **185 047 ha**

v. Fraser Plateau and Basin complex: **627 031 ha**

vi. Northern Cordillera forests: **9 524 715 ha**

vii. Northern Pacific coastal forests: **1.8 ha**

viii. Northern transitional alpine forests: **2 379 951 ha**

ix. Pacific Coastal Mountain icefields and tundra: **2 050 735 ha**

x. Yukon Interior dry forests: **574 051 ha**

xi. Rock and Ice: **929 070 ha**

Forest by management type (ha):

plantation/managed natural/natural: 100% natural managed forests

Distribution of forests according to certification scheme (ha): (e.g. hectares of FSC or PEFC-certified forest)

i. TSAs within the SBA

TSA	Certification	Non-certified (%)	Certified (%)
Bulkley	SFI	29.42	70.58
Cassiar	SFI	98.15	1.85
GBR North	SFI	33.26	66.74
Kalum	SFI	73.03	26.97
Kispiox	SFI	76.61	23.39
Nass	SFI	65.57	34.43
Cascadia	SFI	Not available	Not available

Pacific	SFI	Not available	Not available
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ii. TFL Certification within SBA

TFL	Certification	Company	Non-certified (%)	Certified (%)
TFL #1	-	-	100.00	0.00
TFL #41	SFI	Skeena Sawmills Ltd	0.00	100.0

Timber Supply Area (TSA) and Timber Farm License (TFL) are two processes managed by the provincial government to grant timber access to the forest industry plants. The TSA designations ensure BC Timber Sales has sufficient allowable annual cut allocation. The TFL grants exclusive rights to harvest timber and manage and conserve forest resources within a defined area of land.

Detailed information about the supply base region (general description of the forest resources and forest management practices within the Supply Base) is publicly available at the BP's homepage

5.3 Detailed description of Supply Base

Total Supply Base area (ha): 24.271 million ha

Tenure by type (ha): 23.88 million ha Crown ownership, 341.26 thousand ha private forests, 50.48 thousand ha Federal land [NOTE: protected areas – 5.98 million ha]

Forest by type (ha): 10.01 million ha Boreal Forests/Taiga, 10.6 million ha Temperate Coniferous Forests, 2.52 million ha Tundra (less 929,070 ha rock & ice)

Forest by management type (ha): 24.27 million ha managed natural

Certified forest by scheme (ha):

5.4 Chain of Custody system

The Organisation holds PEFC Chain of Custody certificate NC-PEFC/COC-053674 and the SBP chain of custody is based on the PEFC CoC system. The Biomass Producer's PEFC Chain of Custody system is based on the Volume Credit method, and all inputs to the production shall either be received as XX% PEFC certified or sourced as PEFC Controlled Sources under the BP's PEFC Due Diligence System.

The organisation is producing wood pellets from residues of primary wood processing. PEFC mass balance system (Volume Credit system) is used for accounting of feedstock with 100% PEFC claim. The BP is planning to source controlled material within PEFC DDS.

After the reception, incoming feedstock is weighted, moisture determined, accepted feedstock unloaded into piles according to type of feedstock and is registered into the recordkeeping system.

Moisture and weight is measured for each feedstock type. PEFC mass balance accounts are updated once in a month: data about received raw materials by xx% PEFC certified material certification status and volume of sold pellets as 100% PEFC are recorded.

In case of the PEFC and / or SBP sales, the corresponding volume of sold pellets is withdrawn from the credit account.

6 Evaluation process

6.1 Timing of evaluation activities

The main assessment auditing process was conducted in accordance with the audit agenda described below, which had been provided to the BP prior to the audit. No supplier visits had been conducted since the BP is sourcing the feedstock from sawmill which is related company and many of the staff share responsibilities.

In total 2 days were spent for the assessment audit: 1.5 days onsite and 0.5 day for the document review.

Audit plan for the main part of the third surveillance evaluation is placed below.

Activities/ timing	Place	Auditors	Date
09.00 - 09.30 Opening meeting	Office	GK	06.03.2019
09.30- 12.30 SBP Management system review, discussion of the changes taking part in a system Review of the documents and evidences related to implementation of the SBP standards 2,4. Office staff interview Documents and procedures review, including review of: Management System for SBP (and PEFC); Supply Base Report Analysis of PEFC Chain of Custody (CoC) system critical control points	Office		
13.30- 15.00 Site tour: Interview with feedstock reception department, responsible persons for moisture measurement (interview with operator), responsible persons for energy production and sourcing, responsible for production (interview with production manager), and shipping. Inspection of installations, comparison with „SAR“ technical data Verified processes and involved departments 1) Procurements and reception (office manager/ logistic specialist, tractor drivers) 2) Moisture measurements (operators/ laboratory); 3) Production and production records/ (accountancy/ production staff 4) Energy related recordkeeper (Energy/ mechanics/ Mechatronics); 5) Sales and client communication (sales department)	Production site	GK	

15.00 - 17.30 Review of the documents and evidences related to implementation of the SBP standard 5 and instruction document 5A. Office staff interview Review of „SAR“ and GHG calculations, evaluation of compliance to SBP Framework Standard 5: Collection and Communication of Data, Instruction Documents 5A,5B,5C. Review of documentation and records, assumptions for calculation of energy consumption and related GHG emissions data: 1. Engineering specifications, interviews to responsible technical staff, 2. available records of and invoices for: Electricity, diesel, natural gas, propane 3. Samples of transport documents / invoices (finished products)	Office	GK	06.03.2019
9.00- 11.00 Continued review of SAR report and GHG calculations, including review of documentation	Office	GK	07.03.2019
11.00- 12.00 Interview with Sales and Marketing department representatives: 1. Preparation of invoices for SBP biomass sales process 2. Use of DTS for SPB claims 3. SBP Trademark use	Office	GK	07.03.2019
12.30 - 13.00 Visiting Kitsumkalum rail yard (logistics site)		GK	07.03.2019
13.00 - 15.30 PEFC chain of custody evaluation	Office	GK	07.03.2019
16.00 Closing meeting (SBP/PEFC chain of custody evaluation results)	Office	GK	07.03.2019

6.2 Description of evaluation activities

The audit began with an opening meeting on Wednesday March 6 at 9:00 - 9:30 with attendance from the President, the Superintendent and overall responsible, operational and administration staff with all daily responsibilities for the BP's CoC and SBP procedures, and the BP's external consultant. During the opening meeting auditor introduced himself, presented the audit aims and objectives, clarified assessment audit methodology and clarified the scope of the audit, as well as rehearsed the audit agenda and discussed the related practicalities.

After the opening meeting auditor went through all applicable requirements of the SBP standards nr.2, 4, 5 and instruction documents 5a,5b and 5c covering input clarification, existing chain of custody and controlled wood system, management system, CoC, recordkeeping/mass balance requirements, emission and energy data and categorisation of input and verification of SBP compliant and SBP Controlled feedstock/ biomass. During the process, overall responsible person for SBP system and over responsible staff as well as other staff having responsibilities within the system were interviewed.

The audit included review of documents check of calculations in regard to the GHG emission data reported by the BP. All SBP related documentation, including SBP Procedures, GHG data calculations/ data sheet, Supply Base Reports, Biomass profiling data, Batch specific data, and PEFC system description was provided by the organization in advance as well as were reviewed during the desk verification conducted prior to the audit. Overall changes had been discussed.

The audit also included a site tour, with review of production facilities and equipment which was not in operation but in the process of commissioning, review of feedstock reception process, feedstock storage and final product storage. Interviews were conducted with all staff relevant to the critical control points and key responsibilities in relation to the reception, production, storage and sales of the certified products. Attention was focused on practical implementation aspects of the SBP system, review of documents and system, evaluation of input material classification (reception and registration), analysis of the critical control points in existing CoC system and PEFC system control points as well as correctness and availability of GHG data. During the first day of the audit, roundtrip around BP's pellet production was undertaken. During the round trip production technology and information about the main production facilities was presented to the auditor.

The audit was concluded in the afternoon of Thursday March 7 with a closing meeting with attendance by the President, operational/administrative staff and the BP's external consultant. At the end of the audit, audit findings were summarised, and audit conclusion based on use of 3 angle evaluation method were provided to the overall responsible person, President, and other responsible operational/administrative staff that have participated in the meeting. During the closing meeting the auditor also presented information on identified non-conformances and a few points for follow-up.

6.3 Process for consultation with stakeholders

The organization has conducted a stakeholder consultation by means of posting the SBR on the company website. No formal stakeholder notification was completed by the organization at this time.

NEPCon has conducted a stakeholder consultation by means of sending a stakeholder notification email to stakeholder organizations on February 4, 2019. The notification encourages all stakeholders to forward any comments regarding harvesting practices, environmental performance and any other direct or indirect effect on stakeholders to organization and NEPCon.

7 Results

7.1 Main strengths and weaknesses

Strengths: SBP system elements are in the process of implementation at the time of the assessment. Small number of the management staff and clearly designated responsibilities within the staff members. Experienced and qualified staff. Feedstock delivered with PEFC certification claim only. Strong reliance on measurement-based data acquisition and reporting. In overall the main strength of the BP is in relatively simple scope and use of secondary feedstock, which is all supposed to be received as PEFC Certified and therefore can be sourced without the need for a Supply Base Evaluation. There is access to necessary information regarding the Forest Districts / TSA area of origin through own records, publicly available records of felling permits and the tool www.woodsupplychain.com. With this, the geographical location of the stand can be confirmed as being inside the defined Supply Base.

Weaknesses: two non-conformities (NCRs) were identified during the assessment process. See the NCRs in Section 10 of this report

7.2 Rigour of Supply Base Evaluation

Not applicable. Supply Base Evaluation not applied.

7.3 Collection and Communication of Data

The data had been provided prior to the assessment audit and verified and validated at the time of audit. The data are not complete, and are based both on the first data of plant operation, records from the recordkeeping system and engineering specifications.

The BP uses secondary feedstock only, has documentation for energy and fuel use in the production of pellets, and a simple transport scheme with endpoints at the BP pellet mill in Terrace, B.C. and at the Kitsumkalum railyard in Terrace, BC. The accuracy and completeness of GHG data is evaluated as average due to the fact that no actual biomass processing related data are yet available since the plant is in the process of commissioning.

7.4 Competency of involved personnel

During the audit responsibilities and competencies of staff members involved in the SBP system management and maintenance, were evaluated.

The Plant Manager has been appointed overall responsible for the SBP and PEFC CoC systems. The plant manager was found to have detailed knowledge of all aspects of the feedstock sourcing, pellet production and final product characteristics and logistics. He is supported by administrative staff, the operator, who handles all daily responsibilities for the SBP and PEFC systems. The BP had used the assistance of external consultant who showed very good understanding of both the overall objectives and specific requirements of the SBP system and standards.

7.5 Stakeholder feedback

Neither the organization nor NEPCon had received any comments from stakeholders at the time of the main assessment.

7.6 Preconditions

There are no open preconditions to the certification.

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.

Not applicable. The organisation does not apply Supply Base Evaluation.

9 Review of Company's mitigation measures

Not applicable. The organisation does not apply Supply Base Evaluation.

10 Non-conformities and observations

Identify all non-conformities and observations raised/closed during the evaluation (a tabular format below may be used here). Please use as many copies of the table as needed. For each, give details to include at least the following:

applicable requirement(s)

grading of the non-conformity (major or minor) or observation with supporting rationale

timeframe for resolution of the non-conformity

a statement as to whether the non-conformity is likely to impact upon the integrity of the affected SBP-certified products and the credibility of the SBP trademarks.

10.1 Open non-conformities

NC number 01/19 (30126)	NC Grading: Minor
Standard & Requirement:	SBP Standard 4, p. 5.4.1 5.4.1 Biomass supplied with an SBP claim shall, in addition to meeting the requirements specified in the SBP-approved CoC system being implemented, be supplied with the following information: - The name and address of the buyer; - The date on which the invoice was issued; - A description of the product – this must correspond to the description of the product given in the input and output records - The quantity of the products sold with specific batch data
Description of Non-conformance and Related Evidence:	
Special requirements for sales documentation are defined in the BP's documented procedure (section 4 and 5) "PEFC Chain of Custody & SBP Procedures / Programme for the Endorsement of Forest Certification & Sustainable Biomass Program", which contains provisions for both PEFC CoC sales documents and SBP sales documents. Requirements for SBP sales documents includes the essentials outlined in the standard indicator except the requirement to meet requirements of SBP-approved CoC system (PEFC). Review of sample (mock) sales invoice for SBP-Compliant biomass sales reveal lacking "xx% PEFC certified" claim that shall accompany SBP-Compliant Biomass invoices. See mock invoice in Exhibit 10. A minor NCR 01/19 raised due to lack of clear certification claim specification for SBP sales documents in organization's documented procedures.	
Timeline for Conformance:	By the next surveillance audit, but no later than 12 months from report finalisation date
Evidence Provided by Company to close NC:	Pending
Findings for Evaluation of Evidence:	Pending
NC Status:	Open

NC number 02/19 (30128)	NC Grading: Minor
Standard & Requirement:	Standard #2 V1.0 - Verification of SBP-compliant feedstock, p 6.3 6.3 The BP shall ensure that the place of harvesting is within the defined SB. a) Note: 'Place of harvesting' in the standard means the place of growth of the feedstock, i.e. the location of the tree stump
Description of Non-conformance and Related Evidence:	
It has been revealed at the time of the assessment audit the organization sources SBP-compliant secondary feedstock from one supplier, a related company – primary processor. Thus, the BP have access to information on supplies of primary material and can ensure that the place of harvesting for the secondary feedstock is within the defined Supply Base. The BP has also planned to purchase secondary material from other external suppliers; however, there are no provisions envisaged in documented procedures or instructions on how to ensure the place of harvesting for SBP-compliant secondary feedstock is within the defined Supply Base by other potential suppliers	
Timeline for Conformance:	By the next surveillance audit, but no later than 12 months from report finalisation date
Evidence Provided by Company to close NC:	Pending
Findings for Evaluation of Evidence:	Pending
NC Status:	Open

NC number 03/19 (30336)	NC Grading: Minor
Standard & Requirement:	Standard #2 V1.0 - Verification of SBP-compliant feedstock, p 19.2 The SBR shall be signed off by senior management in all cases
Description of Non-conformance and Related Evidence:	
The Supply Base Report is not signed by senior management of the Organization, the Plant Manager	
Timeline for Conformance:	By the next surveillance audit, but no later than 12 months from report finalisation date
Evidence Provided by Company to close NC:	Pending
Findings for Evaluation of Evidence:	Pending
NC Status:	Open

10.2 Closed non-conformities

No closed non-conformities

10.3 Observations

OBS 01/19 (30127)	Standard & Requirement:	SBP Standard 5, Instruction document 5B (ver. 1.1), p. 14.2 14.1 The BP shall record the electricity consumed during the Reporting Period, stated as kWh per tonne of biomass output. (5b, 5.5.1) - Electricity consumption can be excluded if appropriate metering is in place to enable exclusion of non-biomass related consumption from biomass related consumption. However, if such additional meters are not available, a theoretical approach can be used to allocate the power to the different uses; - Ancillary facilities (for example, Offices, cafeterias, workshops, site lighting, laboratories) can be excluded only where this consumption would have occurred in the absence of biomass production.
Description of findings leading to observation:	No data on actual electrical energy consumption are available. The BP has provided an estimate on energy use based on the engineering specifications – the power data of equipment and projected operation time of the machinery. Detailed calculation of the electrical energy consumption is provided in SAR document, section 2 Energy Use. There is one meter of electrical energy installed at the facility and it meters energy consumption for both biomass processing processes and also ancillary, non-biomass production related processes. Information on electrical energy consumption for ancillary facilities (office, laboratory, site lighting) was not available at the time of audit. The estimated amount of electrical energy consumed by office facilities, has not been measured or estimated.	
Observation:	The BP shall record the electricity consumed during the Reporting Period, stated as kWh per tonne of biomass output and enable exclusion of non-biomass related consumption from biomass related consumption.	

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):	Pilar Gorría Serrano
Date of decision:	16/Apr/2019
Other comments:	<i>Click or tap here to enter text.</i>