



SBP Audit Report (SAR) on Energy and Carbon Data for Woodchips with Mobile Chipping

**for Biomass Producers producing
woodchips using mobile facilities**

Version 2.1

SBP certificate holder number: [in format 05-18]

SBP certificate holder name: Alstrup Skovservice ApS

Please visit www.sbp-cert.org for more information about the biomass producer

Reporting period (should be based on 12 months) and the start date should not be older than 18 months from the audit date.

From: 01-03-2022

To: 28-02-2023

**SAR expiry date (=date of the first audit closure for the reporting period+ 15 months):
DD/MM/YYYY**

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1 Generalities

1.1 General information on the Biomass Producer

Company name	Alstrup Skovservice ApS
Contact person on site	Gert Alstrup Jensen or Jette Fromberg Nielsen
Contact person's function	Owner
E-mail address	info@alstrupskov.dk
Telephone	21 74 82 61 / 21 18 29 29
Address of production site ¹	Egerisvej 5, Vorgod-Barde, 6920 Videbæk, Denmark
DBSD enabled? (has BP established the system for feedstock groups and is allowed to use the 99 code in DTS)	No

¹Location where the biomass is produced

1.2 Justifications for data provided and methodologies used

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1.3 Basic information on the Certification Body (CB)

Name of the Certification Body	DNV Business Assurance Finland Oy Ab
Audit team members	Karina Seeberg Kitnaes
Qualifications of team members	SBP auditor
Contact details of the auditor (email)	Karina.seeberg.kitnaes@dnv.com

2 Feedstock data

2.1 Feedstock Groups – as defined by local industry practice

Guidance: please click on the row and then click on “+” button on the right to add another row.

In case of multiple transport steps for a Feedstock Group proceed by adding one line and merging other columns.

It is not required to include feedstock that is ONLY used as biomass fuel, but optionally this can be done if data are available and verifiable.

If part of the Feedstock Group is diverted as biomass fuel, then consider the TOTAL mass here and add also a corresponding line in Table 3.5

Give the total raw mass of feedstock as received used for biomass production on the reporting period, including shares diverted as biomass fuel. ¹	...14.824,07...	metric tonne as received
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A	B	C	D	E	F	G	M
#	Origin	Feedstock type	Physical description	Country of harvest (new row for each country) ⁴	Raw mass as received in metric tonnes	Moisture % as received (weighted average, single figure) ²	Specify any pre-processing OUTSIDE the BP plant (chipping, drying, none) ³
1	Other trees from parks or landscape	Forest residues without stumps	Chips	Dk	1.766,75	44,60	Chipping
2	Other trees from parks or landscape	End of life trees	Chips	DK	703,58	44,60	Chipping
3	Thinning from (semi-)natural forests	Forest residues without stumps	Chips	DK	6.554,00	44,60	Chipping
4	Final harvest from (semi-)natural forests	Forest residues without stumps	Chips	DK	2.927,00	44,60	Chipping
5	Final harvest from (semi-)natural forests	Low grade stemwood	Roundwood	DK	1.609,22	44,60	Chipping
6	Short rotation coppices	Forest residues without stumps	Chips	DK	1.263,52	44,60	Chipping

¹Sum all values in column F of the Table (Letter ID's refer to Instruction Document 5E)

²Where the moisture content of the feedstock is not recorded; the BP may provide an estimate or use a default value.

³ If chipping or drying takes place inside the pellet or chipping plant then please specify the information in the relevant sections 3.3 and 3.4

⁴ Nation or large region of nation (like State of USA, Province of Canada, Region of Russia)

2.2 Other relevant information, including justifications for data provided and methodologies used

Wood from thinning in semi natural forests consists of non-commercial products, mainly from nursing trees and smaller trees of poor quality.

Low grade stemwood from final fellings are produced from wood that, for example, is attacked by rot, is of poor quality, or in another way cannot be used in the production at a sawmill.

Alstrup Skovservice has no available data for the amount of diesel used in connection with felling and transport of wood in the forest. The combination of a variety of applications, several different combinations of machines on each project, makes it very difficult to obtain meaningful figures. Alstrup Skovservice has therefore chosen to use default values from BioGrace II for the fuel use in forest for felling and extraction (1.67 L/tons).

There are used two types of mobile chippers, silvatec chipper used in production of feedstock group nr. 3 and 6, Jenz Cobra in the production of feedstock 1,2,3 and 4. Diesel used is calculated with data from machine operators:

Silvatec:	3,00 l/ton feedstock
Jenz, residues:	1,17 l/ton feedstock
Jenz, steemwood:	1,28 l/ton feedstock

B0 diesel used in forest operations.

Fertilizer are very rarely used during wood production where Alstrup Skovservice are harvesting feedstock. Therefore, the value for fertilizers are set to 0 kg / ton produced biomass. Pesticides can be used when planting new forests (afforestation) and shelterbelts. In precautionary principles, Alstrup Skovservice has applied the default value from BioGrace II for use of pesticides.

Approx 8,52% of the SBP wood chips were origin from wood energy crops.

There is no knowledge of pesticide use, but the common practice in Denmark is to use pesticides during establishment only. The default values provided from BioGrace II for forests operations are therefore also used for woody energy crops. It is uncommon to use fertilizer when growing energy crops on farmland as the soil is already very fertile. If fertilizer is used it is recommended to use 50 kg N/ha/year in production year 0 and 1. Production time is usually 7 years. An average of 8 tonnes of dry matter is produced per ha annually. Gives 0,017 kg/metric ton (Dyrkningsvejledning for pil, Larsen, Søren Ugilt 2017).

2.3 Validation by the Certification Body

Parameter	Comments/information
Origins	What evidence was available on site to confirm the origins? (for example, CMR, supplier invoices, supplier contracts, registers), in particular for thinnings:
	Describe here
Feedstock types	What evidence was available on site to confirm origins and feedstock types? (for example, CMR, supplier invoices, supplier contracts, registers, physical evidence on site), in particular for the low grade character of stemwood.

	Describe here
Physical description and raw mass	What evidence was available on site to confirm those data?
	Describe here
Distances	Are the average distances validated by checking locations on a map?
	Yes/No
Vehicles	Was the auditor able to confirm the type of vehicles / transport facilities used to transport the feedstock to the production site? (visual checking?)
	Yes/No

3 Biomass production

Please see appendix 1 for photos and full description of the production process. Biomass product can be woodchips or equivalent energy logs.

3.1 Total production

Annual production	Actual biomass production on the reporting period	Production during reporting period	
		14.824,07	metric tonnes for the reporting period
(CB) What evidence is available to substantiate the reported annual biomass production? Options include: internal registers or annual reports.			

3.1.1 Other relevant information, justifications for data provided and methodologies used

Data Collected in DTS

3.1.2 Validation by the CB

(CB) What evidence / explanation was made available to the auditor

3.2 Phytosanitary treatment

No phytosanitary treatment	<input checked="" type="checkbox"/>
Phytosanitary treatment by fumigation with a chemical agent that reaches the biomass wholly or primarily in a gaseous state (ISPM N°5)	<input type="checkbox"/>
Phytosanitary treatment by heat treatment, in which the wood is heated to a minimum of 56 °C throughout the profile of the wood for a minimum of 30 minutes (ISPM N° 15)	<input type="checkbox"/>
Other type of phytosanitary treatment: please explain.	<input type="checkbox"/>

3.2.1 Other relevant information, justifications for data provided and methodologies used

3.2.2 Validation by the CB

(CB) What evidence / explanation was made available to the auditor

4 Transport of biomass

Static Data Indicators (SDIs) included in this report: [In format XX-YY-ZZ]	Description of SDI (This should include geographic location, and where appropriate type of facility (e.g. port) and means of transport to location and any other identifier (e.g. FOB or transfer of ownership)) – 40 characters limit
05-18-13	Ørsted, Herning
05-18-14	Skjern Paper
05-18-15	Birkelundvej (Storage)

Please add the number of SDIs as required.

4.1 General transport data

Please complete a column for each SDI.

	DATA	05-18-13	05-18-14	05-18-15
Transport leg 1	SDI starting point	In forest	In forest	In forest
	Distance (km)	39,58	30,5	16
	Transported to?	Ørsted, Herning	Skjern Paper	Birkelundvej
	Mode of transport	road	road	road
	Transport powered by?	7% bio-diesel	7% bio-diesel	7% bio diesel
	Transport capacity	24,74 ton	23,86 ton	25,0 ton
	Actual fuel use if known			
	Backhaul if known	No	No	No
Transport leg 2 (if needed)	Starting location			
	Distance (km)			
	Transported to?			
	Mode of transport	Choose an item.	Choose an item.	
	Transport powered by?	Choose an item.	Choose an item.	
	Transport capacity			
	Actual fuel use if known			
	Backhaul if known			
Transport leg 3 (if needed)	Starting location			
	Distance (km)			
	Transported to?			
	Mode of transport	Choose an item.	Choose an item.	
	Transport powered by?	Choose an item.	Choose an item.	
	Transport capacity			
	Actual fuel use if known			
	Backhaul if known			
	Scope end point	Factory gate	Factory gate	Storage

4.2 Storage of biomass

Please indicate address of off-site storage, handling or trans-shipment facility,

Not applicable

Physical address	Birkelundvej 8, Vorgod-Barde, 6920 Videbæk
Description of activity occurring at this location	Storage with maximum capacity of 2.000 tonnes
Maximum time of storage	12 months
Relevant contact person	Gert Alstrup Jensen / Jette Fromberg Nielsen
Telephone / Fax company office	21 74 82 61 / 21 82 29 29

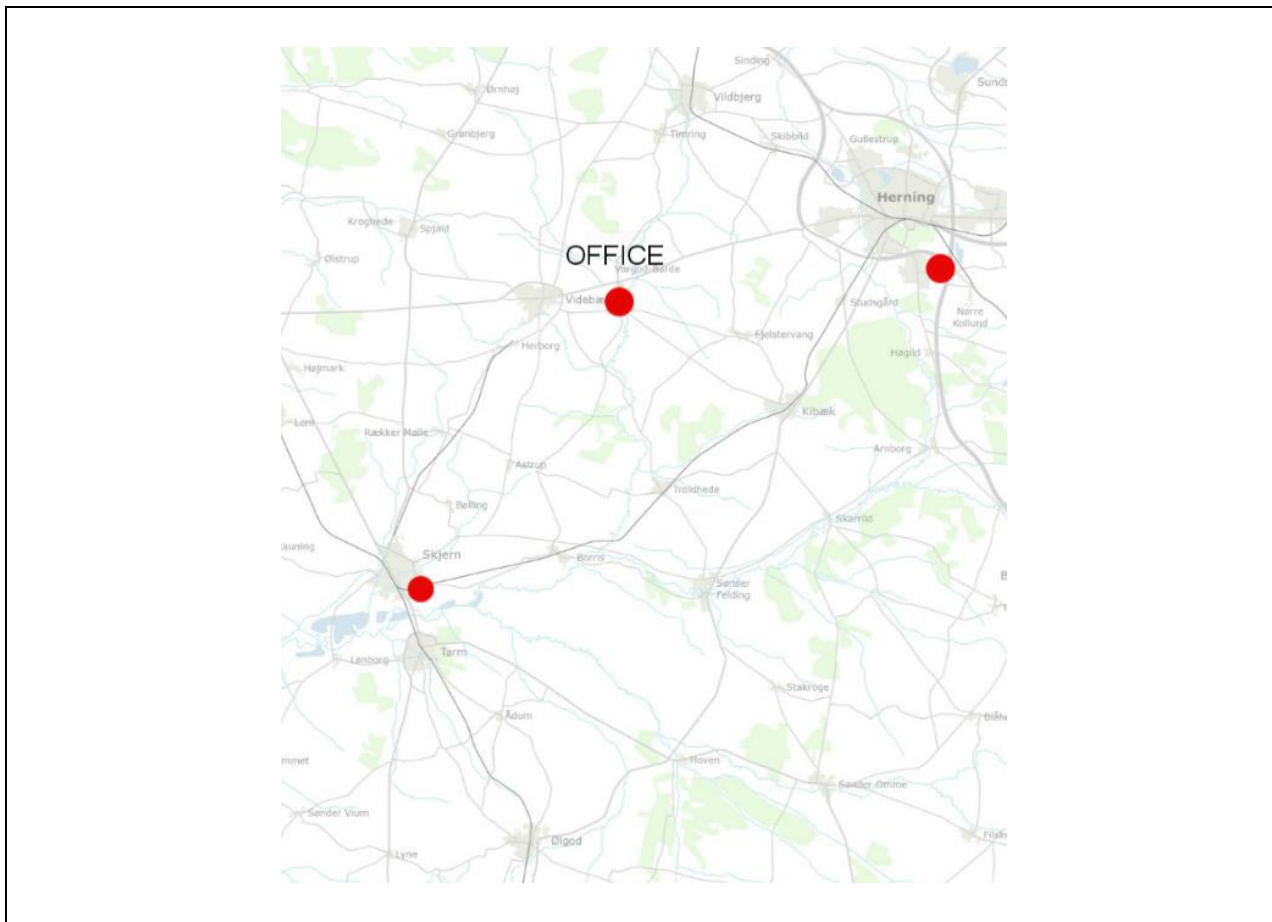
Please indicate energy requirements for storage and handling of biomass, where information is available.

	Value	Unit
Electricity		kWh/t

Fossil fuels	Value	Unit
Diesel oil	3,1	kWh/t
Choose an item.		kWh/t

4.3 Regional map demonstrating biomass producer and location of SDIs

(One map may be used for multiple SDIs where appropriate)



4.4 Other relevant information, including justifications for data provided and methodologies used

Diesel used in road transport is B7, containing minimum 7% of bio-diesel

Storage is placed 4 km from office address

During the reporting period, 1.624,75 tonnes of wood chips were handled in the storage aprox. 1.624,75 tonnes has been sold as SBP -Compliant. Wood chips at the storage has been sent from projects south and southwest of the storages location and all woodchips handled at the storage were sent to Skjern Paper and Ørsted CHP plant. Thus, there is only a negligible extra transport of the wood chips that has been stored.

Nor is there a Scope-End point that represents the end of the production process, as the biomass as a rule is sent directly from the forest to the CHP plant.

At the storage, a wheel loader is used to load the trucks. Approx. 0.31 l / h B0 diesel are used in the loading process, or the equivalent of 3.1 kWh.

4.5 Validation by CB

The CB must review the information delivered above and verify the data focusing on two parameters that play an important role in the CO₂ emissions:

- type of vehicles used for transport (*visual check of vehicles / transport facilities on site*)
- destination and distances (*to be checked on a map*)

The CB should comment on the validation of the transport scheme as necessary.

5 Key dates and representatives

This document is (select option)	new SAR with updated reporting period
Summary of changes if SAR was updated	Relevant parts of chapters 2, 3, 4 have been updated

5.1 Certificate Holder

Name of the representative of the BP certifying that this template has been filled in to the best of his ability	Jette Fromberg Nielsen
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5.2 Certification Body

Date 1 (=date of closure of the last audit)	
Name of the auditor certifying that the data gathered in this form has been checked and validated in compliance with the last version of SBP Standard #5 and SBP certification procedures.	
Name of the technical reviewer having checked this document	
Name of the certification decision maker	

5.3 SAR validation and upload in the DTS

Date 2 (= date upload SAR in the DTS = SAR reference)	DD/MM/YYYY
Please indicate corresponding validity date on page 1. Keep validity date as in previous SAR version if it is an updated version without change of the reporting period.	validity date = date 1 + 15 months
Name of the SBP officer in charge of validation	

Appendix 1: Photographs/illustrations

This shall include photographs/illustration/pictures of at least the following:

- Feedstock storage
- Biomass storage and handling

A ground plan of the facilities and / or a flowchart shall also be included if available.

Spring 2021



Spring 2021



Green Chip CH 838 wood chipper



MAN chip truck



Appendix 2: Production process

Describe the on-site biomass production process, focusing on any variation from best practices, and including a detailed description of the processes undergone by feedstock.

Feedstock delivery	Weighbridge or other volume measuring	<input checked="" type="checkbox"/> applicable to all feedstock groups <input type="checkbox"/> applicable only to feedstock group nr..... <input type="checkbox"/> not applicable	
	Moisture monitoring	<input checked="" type="checkbox"/> applicable to all feedstock groups <input type="checkbox"/> applicable only to feedstock group nr..... <input type="checkbox"/> not applicable	
	Unloading	<input checked="" type="checkbox"/> truck tipping <input type="checkbox"/> live bottom truck <input type="checkbox"/> moving floor <input type="checkbox"/> grab/front end loader/crane <input type="checkbox"/> hopper/conveyor belt <input type="checkbox"/> blowpipe <input type="checkbox"/> other (specify)	applicable to feedstock group nr 1-6 applicable to feedstock group nr..... applicable to feedstock group nr..... applicable to feedstock group nr..... applicable to feedstock group nr..... applicable to feedstock group nr..... applicable to feedstock group nr.....
Product handling	<input type="checkbox"/> rolling stock <input type="checkbox"/> conveyor belt. <input type="checkbox"/> blowpipe, <input type="checkbox"/> forklift, <input type="checkbox"/> other (specify) ...		
Product storage	<input type="checkbox"/> warehouse <input type="checkbox"/> silo <input checked="" type="checkbox"/> open air <input type="checkbox"/> other (specify) <input type="checkbox"/> no storage	maximum storage capacity: 2.000 tonnes	

In this appendix, please concentrate on elements that might influence the calculation of the net fossil CO₂ emissions (anything which will contribute >1% of the total Carbon emissions).

Other relevant information to the biomass production process not captured anywhere else

Production is based in the forest, cutting, transport and chipping. Every load of biomass is weight at weighbridge and samples for moisture measuring are done at powerplant, before unloading. Tipping trucks are used.