SBP Audit Report (SAR) on Energy and Carbon Data for Pellets

for Biomass Producers producing pellets[1]

Version 2.2

SBP certificate holder number: **SBP-13-14**
SBP certificate holder name: **Bioena S.A.S**

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

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

From: 01-October-2023

To: 07-November-2024

SAR expiry date
(=date of the first audit closure for the reporting period+ 15 months): 07-February-2026

- [1] and woodchips if both stationary chipping and thermal treatment are carried out on a separate processing site.

Contents

1 Generalities

1.1 General information on the Biomass Producer

Company name	Bioena S.A.S
Contact person on site	Ricardo Benítez
Contact person's function	Supply Manager
E-mail address	rb@bioena.co
Address (physical location of the biomass production unit, pellet plant or woodchips processing unit)	Km 54,1 Ruta del Sol 3 Bosconia - Santa MartaDesviación vía a Monterrubio Km 1. Algarrobo, Magdalena, Colombia.Algarrobo, Magdalena
Telephone	+57 3228848049
DBSD enabled? (has BP established the system for feedstock groups and is allowed to use the 99 code in DTS)	Yes

1.2 Justifications for data provided and methodologies used

This space made be used to provide additional information appropriate to the whole SAR, for example selection of a reference period other than 12 months or how recording of data has been undertaken for a recently commissioned plant.

The information to be provided is based on projected consumption for a 12-month period, using consumption values given by the production facility's manufacturer. These values, however, will be adjusted once the construction phase is completed.

1.3 Basic information on the Certification Body (CB)

Name of the Certification Body	NEPCon OÜ trading as Preferred by Nature
Audit team members	Pilar Gorría Serrano
Qualifications of team members	Forest engineer (Politecnic Univ. Of Madrid).

	Has successfully completed SBP training course and the NEPCon Lead auditor training for FSC /PEFC CoC and FM certification. Has experience from forest certification (FSC / PEFC FM), traceability (FSC / PEFC CoC) and biomass certification (SBP - Sustainable Biomass Program) for more than 10 years.
Contact details of the auditor (email)	pgorria@preferredbynature.org

2 Feedstock data

2.1 Feedstock Groups – as defined by local industry practice

Guidance:please click on the column and then click on "+" button on the right to add another column
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

Complete all columns, mark N/A if not relevant.

Give the **total** raw mass of feedstock as received used **for biomass production** on the reporting period, **including** shares diverted as biomass fuel[1]	131787	metric tonne as received

	1	2	3
Origin	Final harvest from plantations	Processing residues	Processing residues
Feedstock type	Low grade stemwood	Sawmill and wood industry residues	Sawmill and wood industry residues
Physical description	Roundwood	Offcuts	Chips
Country of harvest (new column for each country)[4]	CO (Colombia)	CO (Colombia)	CO (Colombia)
Region/State	Colombia	Colombia	Colombia
Raw mass as received in metric tonnes	113237	9580	7920
Moisture % as received (weighted average, single figure)[2]	30	25	25
Weighted average distance (km)	155	374	374
Maximum distance (km)	252	654	654
Vehicle	Truck	Truck	
Vehicle powered by	Diesel oil		
Weighted average load of the vehicle	34	30	30
Specify any pre-processing OUTSIDE the BP plant (chipping, drying, none)[3]	N/A	N/A	N/A

	4	5	6
Origin	Processing residues		
Feedstock type	Sawmill and wood industry residues		
Physical description	Shavings		
Country of harvest (new column for each country)[4]	CO (Colombia)		
Region/State	Colombia		
Raw mass as received in metric tonnes	1050		
Moisture % as received (weighted average, single figure)[2]	25		
Weighted average distance (km)	146		
Maximum distance (km)	187		
Vehicle	Truck		
Vehicle powered by	Diesel oil		
Weighted average load of the vehicle	30		
Specify any pre-processing OUTSIDE the BP plant (chipping, drying, none)[3]	N/A		

[1]Sum of raw mass as received in metric tonnes for all feedstock types
[2]Where 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 Use of energy and chemicals in forests or plantations for biomass feedstock (optional)

Currently, it is common practice that End-Users use the disaggregated default value for eec, as provided in Annex VI of REDII. However, sometimes data on use of energy and chemicals in forestry operations may be available and may be collected by the Biomass Producer. The End-User may benefit from using actual values. The table below may be used in that case. You can also mark N/A where relevant (e.g., no fertilisers or other chemicals used).

Feedstock Group number (from previous table)	Harvest yield (kg harvest yield dry/ (ha*year))[2]	Diesel fuel consumption for, e.g., tractors, harvesters (l/ (ha*year))	Electricity consumption (kWh/ (ha*year))	Types and quantities of fertilisers used (specify (if applicable): quantity of P2O5, K2O, CaO, mineral and organic N fertilisers (kg/(ha*year)))	Quantity of chemicals (e. g. pesticides) (kg/ (ha*year))	Quantity and type of raw materials used (e. g., seeds) (kg/ (ha*year))

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

Please mention at the minimum:

- for the Origin, the evidence elements assessing the thinning character of the origin,
- for the Feedstock type, the evidence elements assessing the low grade character of the stemwood, in comparison with local high grade specifications (like sawlogs for local sawmills).
- you may also specify optional data on energy use and chemicals in forests

The methodology will focus on four primary species for consumption: Eucalyptus tereticornis, Gmelina arborea, Tectona grandis, and two pine species, Pinus patula and Pinus maximinoi, which were introduced to Colombia primarily in the 1980s.The use of Eucalyptus tereticornis in sawmill operations is limited due to its physical properties, particularly its hardness. Although it was initially employed for poles in rural electrification and telecommunication, it was later excluded as an authorized material following specific national regulations.For gmelina, teak, and pine, lower-grade wood is utilized within the sawmill industry. The residual wood waste generated through this process will serve as the primary feedstock for the pellet plant.

2.4 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:
	Origin was verified by checking purcahse agreements with the planned feedstock and doing field visits at FMU level where eucalyptus plantations where verified as well as the harvesting procedures through interviews with BP forest responsible.
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.
	Origin was verified by checking purcahse agreements with the planned feedstock and doing field visits at FMU level where eucalyptus plantations where verified as well as the harvesting procedures through interviews with BP forest responsible. Interviews with local stakeholder were also conducted to verify local industry.
Physical description and raw mass	What evidence was available on site to confirm those data?

	Biomass Producer has not started to do any harvesting or receive any material. So no visual observation was conducted at the BP storage site. Primary feedstock has been observed at the FMU and secondary supplier was visited by COC adit team, where secondary feedstock could be verified.
Distances	Are the average distances validated by checking locations on a map?
	Yes
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

3 Biomass production

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

3.1 Total production

Annual production	**Actual biomass production (1)**	Production during reporting period	
		38627	metric tonnes
	Design capacity:	125000	metric tonnes of biomass product/year
	Average lower heating value:	18,6	MJ/kg (wet basis) average for the reporting period
(CB) What evidence is available to substantiate the reported annual biomass production? Options include: internal registers or annual reports.		Biomass Producerhas not started with production activities. Biomass production data is based on technical information of the equipements and installed machinary, as well as moisture content of feedstock and feedstock amount agreed with supplirs in the current purchase contracts.	

3.2 Electricity use

☐ **Not applicable**

Give the origins of the electricity used in the biomass production process during the reporting period (2)	☐ from network	kWh
	✔on-site generation	8847144 kWh
	☐ CHP plant (see 3.5.4)	kWh
	☐ wind or solar farm	kWh
	☐ other (specify)	kWh
	Total specific electricity use sum of (2)/(1)	229.04 kWh/metric tonne
Explain **how** this energy consumption has been **evaluated**: The **calculation method** based on electricity **invoices** is the most accurate and reliable one. This method must be used if feasible. Please provide the calculation itself	☐ invoices of external electricity supplier and biomass production achieved, ✔specific fuel consumption and electrical efficiency of installed cogeneration plant and biomass production ☐ a theoretical evaluation based upon specific consumption of installed machinery and nominal production capacity of the plant ☐ Other explanation: Calculation: Bioena will use natural gas from the local network supplied by Gases del Caribe, which will handle the invoicing for monthly consumption. Consumption will be closely monitored through dedicated meters installed by the supplier, ensuring precise and continuous measurement. The gas will power electric generators,	

	which will record the output in kilowatt-hours (kWh), providing detailed oversight of both gas usage and energy output.

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

BIOENA will initiate raw material supply to ensure a substantial stock volume for production. However, due to the initial production conditions, machinery calibration, and production stabilization processes, the output of finished products will be significantly lower than the available stock of raw materials. This discrepancy will be carefully managed through meticulous records of raw material inventory in the lumber yard, production orders, and finished product stock in each storage location at the plant and port, respectively.

3.2.2 Validation by the CB

(CB) What evidence / explanation was made available to the auditor :
Theoretical calculation has been provided by the Biomass Producer based on installed or projected machinary. As the Biomass Producer is still to be commisioned the theoretical approach is valid and new audit will be planned arround MAy 2025 when the plant will be fully operational.

3.3 Use of fossil fuels

☐ **Not applicable**

Each fossil energy source must be described in detail in the table hereunder. Use as rows as necessary in order to cover each fossil fuel. If any responses are marked as ‘other’, please include further detail in the box below (also for offsite chipping by third party)

	1	2	3
Type of fossil fuel	Natural gas	Diesel oil	
Total consumption during reporting period (value)	11,72	81847	
Units	MJ / Metric Tonne pellets (natural gas only)	Litre (liquid only)	
For gaseous fuels specify high or low heating value	N/A	N/A	
Processing step using fossil fuels	Other or multiple uses (please specify) Bioena has designed a plant powered by natural gas to supply the energy required for pellet production. The natural gas usage is monitored closely on a monthly basis and is invoiced by the utility provider. This setup ensures effective	Handling	

	tracking of energy consumption and a consistent, reliable energy supply for continuous production.		
How has this energy consumption been calculated:	Fuel consumption monitored by supplier	Fuel consumption monitored by supplier	

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

BIOENA will use natural gas to preheat the biomass in the process dryer until it reaches 600°C. Once this temperature is achieved, a burner fueled by dry biomass powder of a specific granule size will take over, maintaining the optimal temperature needed to dry the biomass.

3.3.2 Validation by the CB

(CB) What evidence / explanation was made available to the auditor :
Theoretical calculation has been provided by the Biomass Producer based on installed or projected machinary. As the Biomass Producer is still to be commisioned the theoretical approach is valid and new audit will be planned arround MAy 2025 when the plant will be fully operational.

3.4 Use of biomass fuels

☐ **Not applicable**

Use as many columns as necessary in order to cover each type of biofuel and each process.

	1	2	3
Feedstock ID Group in Table 2.1 if applicable or NA[1]	1-2-3-4		
Biomass type[2]	Saw mill residues (dust, chips,...)		
Total consumption during reporting period (value)	8345		
Units	Raw metric tonne		
Moisture content %as received, point of use	10%		
Processing step using biomass fuels	Chipping/Crushing		
How has this energy consumption been calculated:	Theoretical calculation based on specific		

	consumption of installed machinery		

[1]If biomass fuel is diverted from Feedstock Groups, please mention them in column 1.
[2]Each type of biomass used as a fuel must be described per type

3.4.1 Other relevant information, justifications for data and methodologies used

The biomass powder used as burner fuel is sourced directly from the production process in the dryer. After passing through the second hammer mill, the dry product is refined to the necessary particle size and moisture level to ensure optimal burner efficiency.

3.4.2 Validation by the CB

(CB) What evidence / explanation was made available to the auditor :
Theoretical calculation has been provided by the Biomass Producer based on installed or projected machinary. As the Biomass Producer is still to be commisioned the theoretical approach is valid and new audit will be planned arround MAy 2025 when the plant will be fully operational.

3.5 Moisture content and drying

Is feedstock dried as part of the biomass production process? If no, complete table 3.5.1.
If yes, complete table 3.5.2.

☐ 3.5.1 No drying

Only complete this table if no drying is undertaken.

Feedstock Moisture content		
Initial moisture of the feedstock, as received		% (wet basis)
Explain, with reference to its origin, why the moisture content of the feedstock is sufficiently low to enable the production of biomass product without prior drying.		
Explain how it is monitored / evaluated?	☐ weighted average of moisture measurements performed on each individual feedstock shipment (one measurement per delivery) ☐ typical values based on some moisture measurement (frequency of measurements=) ☐ supplier / process specifications (documents available:) ☐ other explanation: ☐ no evidence or explanation available	
Biomass moisture content		
Moisture of biomass as produced		% (wet basis)

☑ 3.5.2 Drying applicable

Only complete this table if drying is undertaken.
This table must be completed for each type of dryer

Biomass Dryer 1

Moisture content		
Initial moisture of the feedstock, as received	35	% (wet basis)
Explain how it is monitored / evaluated Tick all boxes that apply and provide additional information in 3.3 as required	✔weighted average of moisture measurements performed on each individual feedstock shipment (one measurement per delivery) ☐ typical values based on some measurements (frequency of measurements=) ☐ supplier / process specifications (documents available:) ☐ default values e.g. for round wood ☐ other explanation: ☐ no evidence or explanation available	
Moisture of feedstock at the dryer outlet, if measured (target moisture)	10	% (wet basis)
Moisture of the finished biomass product (as produced)	10	% (wet basis)
Dryer		
Type	✔drum dryer ☐ belt dryer ☐ other (specify)	
Energy carrier (The energy carrier is the transfer medium circulated in pipes and used to transport the heat from the boiler/burner to the dryer.)	☐ steam ☐ hot water ✔hot air / flue gases ☐ other (specify)	
Heat consumption If a heat meter is installed, calculate how much heat energy from the boiler is provided to the dryer and give details of the calculation.	☐ heat meter installed: consumption = kWh ✔no heat meter installed	
Detailed calculation of the heat consumption	In the biomass drying process, a biomass burner heats the air inside the drum dryer, consuming biomass at a rate of 3.4 tons per hour. This approach effectively reduces the moisture content in the biomass, preparing it for	

	subsequent production stages and ensuring efficient processing.
Origin of the heat used in the drying process	✔burner ☐ conventional boiler ☐ CHP (combined heat and power)

3.5.3 Information where a conventional boiler is used

☐ **Not applicable**

Report fossil and biomass fuels used as input resp. in 3.3 and 3.4 under 'boiler'		
Total heat output from boiler that is effectively recuperated and used in an application during reporting period		kWh
Total heat output from boiler that is used in drying during reporting period	604	kWh
How has this data been calculated (e.g. metered data, theoretical calculation based on specific consumption of installed machinery)	BIOENA's plant design includes a small boiler that generates steam, which is fed into the equipment to condition the mixture before pelleting. This process enhances the efficiency of lignin compaction.	

3.5.4 Information where a CHP is used

☑ **Not applicable**

CHP Information 1		
Fuel input of CHP		
Report fossil and biomass fuels used as input resp. in **3.3** and **3.4** under 'onsite CHP' or '3rd party CHP' as relevant and calculate corresponding (1) and (2) values below.		
(1) Total fuel input quantity (unit= t, m^3 or litre)		
(2) Weighted average lower heating value of total fuel input, as received (resp. unit= MJ/t, MJ/m^3 or MJ/litre)		
(3) Total fuel input =(1) x (2)/3.6		kWh
Electricity output of CHP		
(4) net electricity used on site of BP for biomass production as copy/pasted from 3.2 under 'CHP plant'		kWh
(5) net electricity used on site of BP but not for biomass production		kWh

(6) other net electricity generated by CHP that is not used on site of BP and is not self-consumption by CHP		kWh
(7) Total net electricity from CHP = (4) +(5) +(6), excluding self-consumption by CHP		kWh
Heat output of CHP		
(8) Reference temperature of heat at the point of use (if measured)		^{0}C
(9) **net heat used on site of BP for biomass production**		kWh
(10) net heat used on site of BP but not for biomass production		kWh
(11) other net heat used by any other party		kWh
(12) **total net heat used from CHP = (9) +(10) +(11)**		kWh
CHP yield		
Total net CHP yield (=(7) +(12))/ (3)		%
How has this data been calculated (e.g. metered data, theoretical calculation based on specific consumption of installed machinery)		

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

When some data among (1) to (12) is not available, please justify. In all cases at least the best estimate possible for (3), (4), (7), (9) and (12) must be given, as well as the distinction between fossil or biomass origins of the fuels.

In the biomass drying process, a biomass burner heats the air inside the drum dryer, consuming biomass at a rate of 3.4 Metric tons per hour. This approach effectively reduces the moisture content in the biomass, preparing it for subsequent production stages and ensuring efficient processing.

3.5.6 Validation by the CB

(CB) What evidence / explanation was made available to the auditor to substantiate the Biomass production chain moisture content of the feedstock and drying of feedstock: Theoretical calculation has been provided by the Biomass Producer based on installed or projected machinary. As the Biomass Producer is still to be commisioned the theoretical approach is valid and new audit will be planned arround MAy 2025 when the plant will be fully operational.

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
SBP-00-00-01	Factory Gate, BIOENA S.A.S. 10.390869, -74.111437. From this site, the wood pellets will be transported to the COREMAR port.
SBP-00-00-02	COREMAR Port. 10.977973, -74.753245. Corredor de Carga Palermo, Sitionuevo, Magdalena.

Please add the number of SDIs as required.

4.1 General transport data

Please complete a column for each SDI.

If the SDIs do not match the format of the table below please change the orientation of the page or transposition the table.

	DATA	**SBP-00-00-01**	**SBP-00-00-02**	
Transport leg 1	SDI starting point	Factory Gate	Factory Gate	
	Distance (km)		131	
	Transported to?	COREMAR Port	COREMAR Port	
	Mode of transport		Road	
	Transport powered by?		Fossil diesel oil	
	Transport capacity (tonnes)		34	
	Actual fuel use if known (litres)		55.11	
	Backhaul if known			
Transport leg 2 (if needed)	Starting location			
	Distance (km)			
	Transported to?			
	Mode of transport			
	Transport powered by?			
	Transport capacity			

	(tonnes)			
	Actual fuel use if known (litres)			
	Backhaul if known			
Transport leg 3 (if needed)	Starting location			
	Distance (km)			
	Transported to?			
	Mode of transport			
	Transport powered by?			
	Transport capacity (tonnes)			
	Actual fuel use if known (litres)			
	Backhaul if known			
	Scope end point			

4.2 Storage and handling of biomass

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

☐ **Not applicable**

Storage site 1	
Physical address	Km 54,1 Ruta del Sol 3 Bosconia - Santa Marta. Desviación vía a Monterrubio Km 1. Algarrobo, Magdalena, Colombia.
Description of activity occurring at this location	Bioena operates two pellet storage hoppers located at the end of the production line. These hoppers facilitate the efficient loading of vehicles responsible for transporting the pellets to the designated storage location at the port. This configuration optimizes the transition from production to logistics, ensuring consistent pellet quality and streamlining storage and transport workflows.
Maximum time of storage	5 days
Relevant contact person	Dario Ramirez
Telephone / Fax company office	+57 3107380965

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

	Value	**Unit**
Electricity	0.0088	kWh/t

Fossil fuels	Value	Unit

Storage site 2	
Physical address	Corredor de Carga Palermo, Sitionuevo, Magdalena.
Description of activity occurring at this location	Vehicles arriving from the plant automatically unload by dumping their cargo in the designated area of the port warehouse. A front-end loader then transfers the cargo to an electrically powered stacker for efficient stacking. For ship loading, the front-end loader fills dump trucks, which transport the pellets to the ship. There, the ship's cranes are utilized to complete the loading process efficiently and securely.
Maximum time of storage	3 months
Relevant contact person	Carlos Varon
Telephone / Fax company office	+57 3102177106

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

	Value	Unit
Electricity	0,5256	kWh/t

Fossil fuels	Value	Unit
Diesel oil	1,077	litres/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

Bioena has confirmed that the Port of Coremar, located in the city of Palermo, municipality of Sitionuevo, Department of Magdalena, will be the departure point for the wood pellets. A storage agreement has been signed for this purpose. The specific details for handling the pellets at the port are currently being defined.

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.

Transport distances and rutes have been verified using google maps

5 Dynamic Batch Sustainability Data (DBSD)

Record all biomass with DBSD during the reporting period that have been shared to the DTS (as defined in Instruction Document 5E clause 5.2).

Biomass Category	Metric tonnes

5.1 Validation by the CB

(CB) What evidence / explanation was made available to the auditor. Has corresponding DTS data been verified?

6 Key dates and representatives

This document is (select option)	New SAR with updated reporting period
Summary of changes if SAR was updated	

6.1 Certificate Holder

Name of the representative of the BP certifying that this template has been filled in to the best of his ability	Ricardo Benítez

6.2 Certification Body

Date 1 (=date of closure of the last audit)	07-November-2024
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.	Pilar Gorría
Name of the technical reviewer having checked this document	Mikhail Rai
Name of the certification decision maker	Mikhail Rai

6.3 SAR validation and upload in the DTS

Date 2 (= date upload SAR in the DTS = SAR reference)	
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.	07-February-2026
Name of the SBP officer in charge of validation	

Appendix 1: Photographs/illustrations

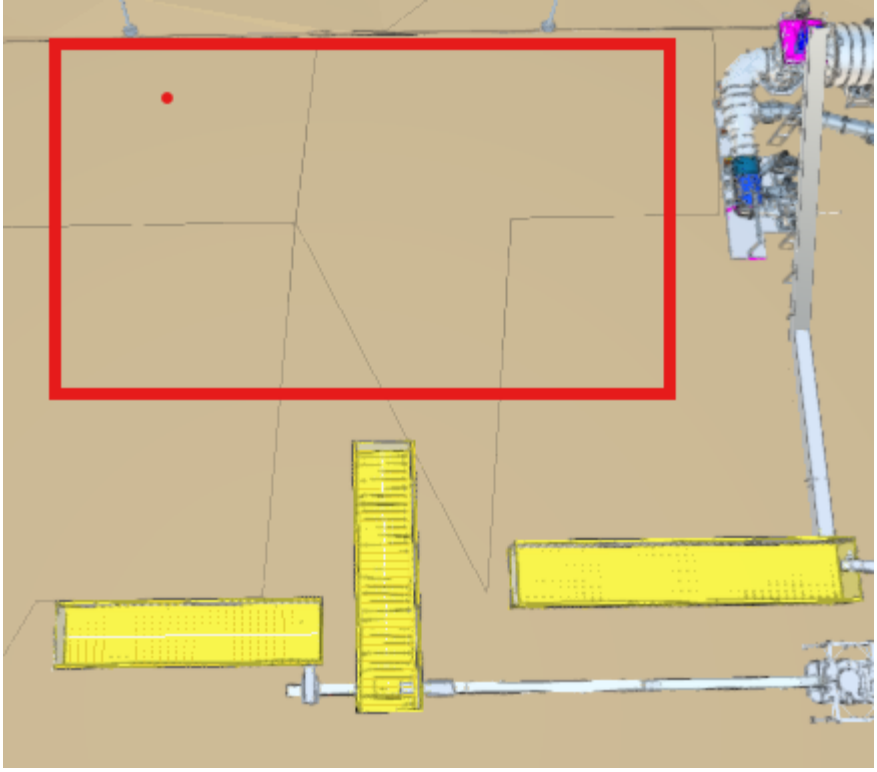
This shall include photographs/illustration/pictures of at least the following:

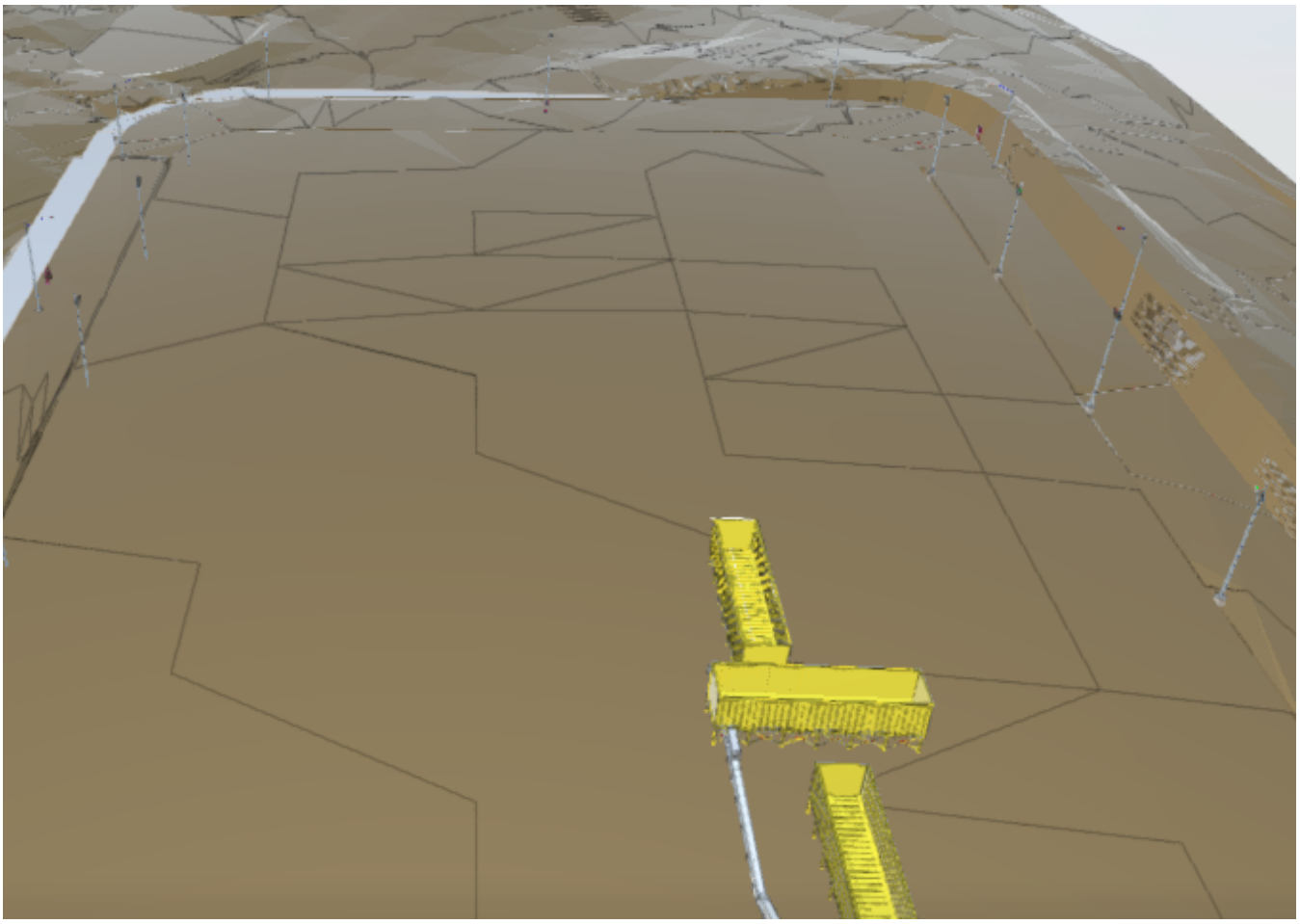
- - Feedstock storage
- - Overview of biomass manufacturing plant
- - Dryer(s) (if any)
- - Wood chippers (green island, dry island)
- - Press(es) if wood pellets
- - Biomass storage and handling

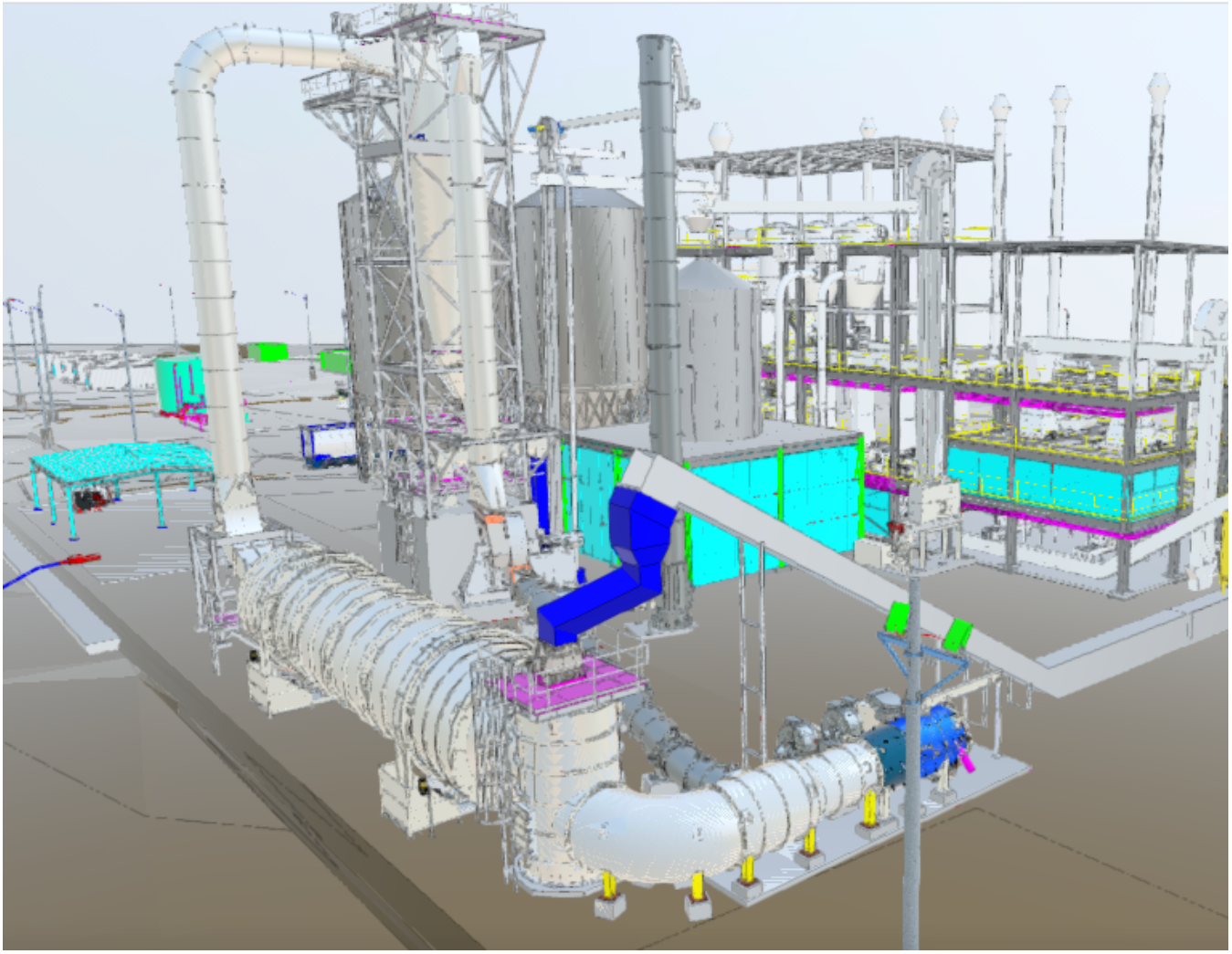
A ground plan of the facilities and / or a flowchart shall also be included if available.

Please add dates when photographs were taken

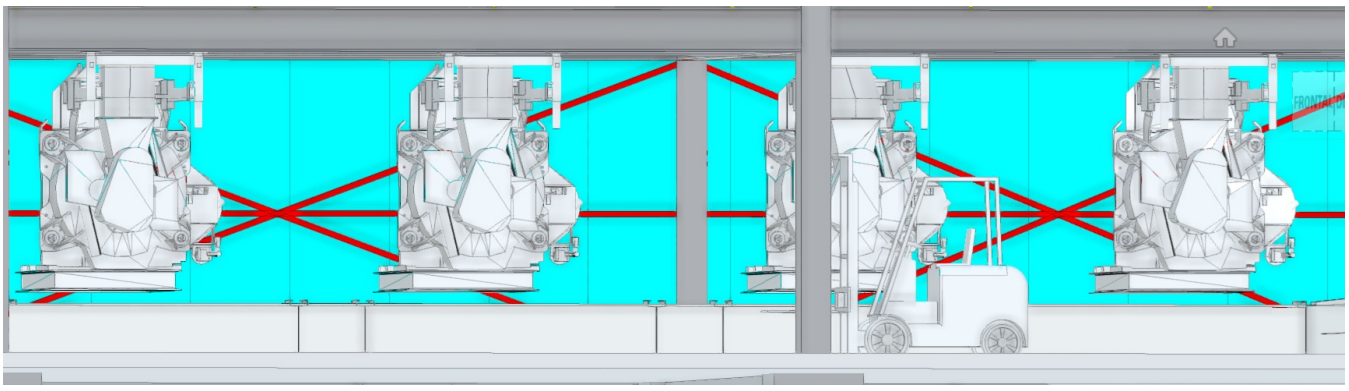
BIOENA is currently under construction and is scheduled for completion in the first quarter of 2025. Enclo
layout and required equipment.







bioena



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	☑ applicable to all feedstock groups ☐ applicable only to feedstock group nr ☐ not applicable
	Moisture monitoring	☑ applicable to all feedstock groups ☐ applicable only to feedstock group nr ☐ not applicable
	Unloading	☐ truck tipping applicable to feedstock group nr ☐ live bottom truck applicable to feedstock group nr ☐ moving floor applicable to feedstock group nr ☑ grab/front end loader/crane applicable to feedstock group nr 1-2-3-4 ☐ hopper/conveyor belt applicable to feedstock group nr ☐ blowpipe applicable to feedstock group nr ☐ other (specify) applicable to feedstock group nr
Feedstock storage		☑ wood yard applicable to feedstock group nr 1-2-3-4 ☐ warehouse applicable to feedstock group nr ☐ silo applicable to feedstock group nr ☐ other (specify) applicable to feedstock group nr

		☐ no storage applicable to feedstock group nr		
Feedstock handling		☑ rolling stock ☐ conveyor ☐ blowpipe ☐ other (specify)		
Feedstock preparation	Debarking	☐ applicable to all feedstock groups ☐ applicable only to feedstock group nr ☑ not applicable		energy source ☐ electricity ☐ diesel ☐ other(specify)
	Chipping	☑ applicable to all feedstock groups ☐ applicable only to feedstock group nr ☐ not applicable		energy source ☑ electricity ☐ diesel ☐ other(specify) 131787
	Drying	☑ applicable to all feedstock groups ☐) applicable only to feedstock group nr ☐ not applicable	☑ drum dryer (number:) ☐ belt dryer (number:) ☐ other(specify) ☐ hot air ☐ hot water ☐ steam	energy source(s) ☑ biomass burner /boiler ☐ fossil fuel burner/boiler (specify fuel) ☐ own biomass CHP ☐ third party fossil fuel CHP (specify fuel) ☐ own fossil fuel CHP (specify fuel) ☐ third party biomass CHP ☐ steam from biomass CHP ☐ other(specify) 7157
Sizing (hammer mill)	Before dryer (green)	☑ applicable to all feedstock groups ☐ applicable only to feedstock group nr		

		☐ not applicable
	After dryer	☑ applicable to all feedstock groups ☐ applicable only to feedstock group nr ☐ not applicable
Pelletising	number of presses 4	design capacity of each press 4,4 tonnes/hour
Product handling	☐ rolling stock , ☑ conveyor belt , ☐ blowpipe , ☐ forklift , ☐ other (specify)	
Product storage	☑ warehouse ☑ silo ☐ open air (woodchips or black pellets) ☐ dome (for pellets) ☐ other (specify) ☐ no storage	maximum storage capacity: 30000 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

A 2,000-ton silo at the plant will be used to load trucks transporting the finished product to the port warehouse, where it will be stored before being loaded onto the ship for delivery.