REQUIREMENTS FOR THE PRODUCTION

OF

BIOGAS AND BIOMETHANE AND

PRODUCTION OF ELECTRICITY/HEAT/COLD

FROM BIOMASS

Note on the status of this document:

This reference document is an integral part of the 2BS voluntary scheme developed by the 2BS Association.

This update aims to comply with the current Revised Renewable Energy Directive EU/2018/2001 (RED III).[1]

[1] *Consolidated version of the Directive: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02018L2001-20240716*

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Traceability of changes in this procedure[2]

Date	Section	Paragraph	Deleted text	Added text	Change of version

[2] *After its initial validation by the EC*

1. Introduction

Biomass fuels and energy production from biomass (bioenergy) play a crucial role in the global energy transition towards cleaner and more sustainable energy sources. They are produced or derived from the biogenic fraction of waste and residues from agricultural, forestry, industrial, economic activities and municipal activities. These materials can be used in various types of facilities to generate heat, cooling, electricity, or can be processed by anaerobic digestion to produce biogas in methanization plants or landfill sites, which can be later be purified to produce biomethane. This procedure outlines the specific requirements that operators of bioenergy production units (heat/cooling/electricity), biogas and/or biomethane production units, as well as biomethane production units using landfill gas, must meet to comply with the sustainability criteria of the Revised Renewable Energy Directive EU/2018/2001 (RED III).

Bioenergy Production (electricity/heat/cooling from biomass):

The production of heat, cooling and electricity from biomass constitutes renewable energy. Unlike fossil fuels (oil, coal), biomass combustion does not introduce new carbon into the atmosphere. The carbon released during the combustion of biogenic materials had already been absorbed from the atmosphere during plant growth, thus creating a carbon cycle that is "neutral" in terms of emissions.

Economic operators producing bioenergy from biomass present in waste, such as Energy Recovery Units (ERUs) and boiler plants using Refuse-Derived Fuels (RDF), play a critical role in the energy transition. These facilities treat non-recyclable waste while producing energy, which can be used directly for heating, cooling or electricity production. This type of valorization contributes not only to waste management (elimination of nonrecyclable waste) but also to the decarbonization of the energy mix. ERUs incinerate a wide range of nonrecyclable waste, while RDF boiler plants focus on the use of alternative fuels produced during the treatment of nonhazardous solid waste.

The preparation of RDF is a specific waste treatment process aimed at separating high lower heating value (LHV) fractions after the removal of recyclable materials to generate bioenergy in RDF boilers or cement plants.

Member states may have detailed specifications of RDF used in different types of facilities, such as high lower heating value energy recovery units, RDF boiler plants or cement plants. Thus, this classification ensures RDFs meet adequate quality and safety criteria (For example, in France the RDF are required to have a LHV as high as >18 MJ/kg to be used in cement plants)

The inputs used for bioenergy production include:

- Residual household waste: This type of waste is created after selective sorting from households and is sent directly for processing to ERUs or landfill sites or treated in mechanical biological treatment (MBT) facilities with the aim of organic matter recovery.

- Non-hazardous economic activity waste: Created from selective sorting in economic activities, this waste is sent directly for disposal to ERUs or landfill sites.

- Sorting rejects: This waste is generated within preparation centers (sorting centers, MBT plants, deconditioning units, etc.) and sent directly for disposal to ERUs or landfill sites.

- Wood waste: This includes non-hazardous wood (e.g., furniture wood from bulky items, packaging wood, etc) containing chemical substances at concentrations higher than naturally present in biomass. If recycling as material during sorting is not possible, it is sent directly for processing to incinerators. For ease of transport and use, this waste is often shredded at a preparation center.

- Collective sanitation waste such as sewage sludge from wastewater treatment plants (WWTP)

- Infectious healthcare waste: This type of waste can be accepted in ERUs for processing. Note that this type of waste requires specific handling of carts containing infectious healthcare waste, for feeding the furnaces without human handling or prior neutralization (hygienization).

In conclusion, it is important to note that energy recovery from the biomass fraction of waste is considered to produce renewable energy only if all the following conditions are met:

- The waste treatment hierarchy detailed in Directive 2008/98 is respected.
- The waste has not been deliberately altered or contaminated to meet the definition of waste.

Production of Biomass-Derived Fuels (Biogas and Biomethane)

Biogas, composed approximately of 50% to 60% methane and 40% to 50% carbon dioxide, can be produced by anaerobic digestion of organic matter. Landfill gas, for its part, is composed of 30 to 60% methane and 30 to 60% carbon dioxide.

Apart from the case of landfill biogas, captured in non-hazardous waste storage facilities, biogas is produced in methanization units.

Two modes of biogas or landfill gas valorization are possible:

- **In cogeneration**, it is used as fuel and valorized in the form of heat and/or electricity

- **In injection**, after purification of these gases in a separate stage (biomethane production)

Biomethane is in increasing demand both as sustainable **heating energy** and as a **fuel for road transport** (BioNGV).

For the same production site, several uses are possible.

For example, a methanization unit can recover biogas in the form of electricity or heat and after purification, inject it into a grid, or supply a BioNGV station. Landfill gas can undergo the same recovery processes.

Biomethane compression/storage systems can also be set up upstream or downstream of the injection. Finally, biomethane can also be liquefied for storage or for use as BioLNG.

Raw materials that can be used for biogas production include livestock manure, crop residues (straw, small straw, silo residues), crops and intermediate crops, grass silage, co-products/residues/waste from agrifood industries, and biowaste.

Methanization units can be associated with the Urban Water Treatment Plants, where biogas is produced by anaerobic digestion of sludge

The anaerobic digestion **("AD")** process to produce biogas uses microorganisms to degrade a wide range of biomass. **"AD"** technology can be operated at various scales up to the individual farm. Landfill gas, a type of gas similar to biogaz, can also be produced by capturing gases from the decomposition of organic matter in non-hazardous waste storage facilities **(landfills).**

According to the Revised Renewable Energy Directive EU/2018/2001 (RED III) directive landfill gas is considered a renewable energy source. The primary purpose of a non-hazardous waste storage facility is to dispose of waste by burying it in specially designed cells. Due to this storage, gas is emitted solely from the biodegradable fraction of the stored waste. This gas formation is not produced by the economic operator managing the landfill site and does not constitute the main purpose of such a facility. However, it is the operator who, instead of releasing it into the atmosphere—where it would contribute to the greenhouse effect—captures and utilizes it for energy in various ways:

- Combustion of landfill biogas to produce electricity
- Combustion of landfill biogas to produce heat/cooling
- Purification of landfill biogas into biomethane

This procedure describes the specific requirements **that economic operators of methanization units recovering biogas and/or biomethane, landfill gas recovery plants, as well as the installations producing bioenergy from biomass** must meet to be in compliance with the sustainability requirements of the RED III.

2. Scope

The requirements apply to methanization plants recovering biogas or injecting biomethane, landfill gas recovery plants and installations producing bioenergy from biomass as well as to the entire supply chain, collection, and trading of raw materials and bioenergy.

2BS provides certification up to the point of injection into the gas grid[3] or the electricity/heating grid.

The certification of mass balancing of energy units of gaseous fuels within an interconnected infrastructure or between interconnected infrastructures can only be provided if the voluntary scheme certification is complementary to the system mass balancing carried out with the support of the Union Database.

Therefore, sustainability characteristics can only be assigned to consignments of gas that has been registered in the Union Database, once the database is fully operational covering gaseous value chains.

The mass balance of the interconnected infrastructure carrying the gas has to be in its entirety covered by the Union Database.

The EU interconnected grid is considered as **one single mass balancing system**. The input (injection) and output (withdrawal) of gas in interconnected infrastructure must be documented by economic operators and subject to independent auditing. Deficits in the mass balance system must not occur.

Gaseous **fuels produced and consumed off the grid** or **through isolated local distribution networks** are to be considered **separate mass balancing systems**. For instance, in the case of certification of Bio-LNG/Bio-NGV, the scheme needs to require that the liquefaction/re-gasification plant is certified.

The supply and production chains concerned by this procedure are:

- solid biomass fuels, in installations producing electricity, heating and cooling with a total rated thermal input equal to or exceeding 7,5 MW;

- gaseous biomass fuels, in installations producing electricity, heating and cooling with a total rated thermal input equal to or exceeding 2 MW;

- in the case of installations producing gaseous biomass fuels with the following average biomethane flow rate:
    - above 200 m3 methane equivalent/h measured at standard conditions of temperature and pressure, namely 0 °C and 1 bar atmospheric pressure;
    - if biogas is composed of a mixture of methane and non-combustible other gas, for the methane flow rate, the threshold set out in point (i), recalculated proportionally to the volumetric share of methane in the mixture.

[3] *A voluntary scheme alone is not able to guarantee the mass balance of a whole interconnected gas grid. The Union Database is playing a key role in ensuring the mass balance of the European gas grid. The roles of voluntary schemes and national registries are complementary to this.*

Member States may apply the sustainability and greenhouse gas emissions saving criteria to installations with lower total rated thermal input or biomethane flow rate.

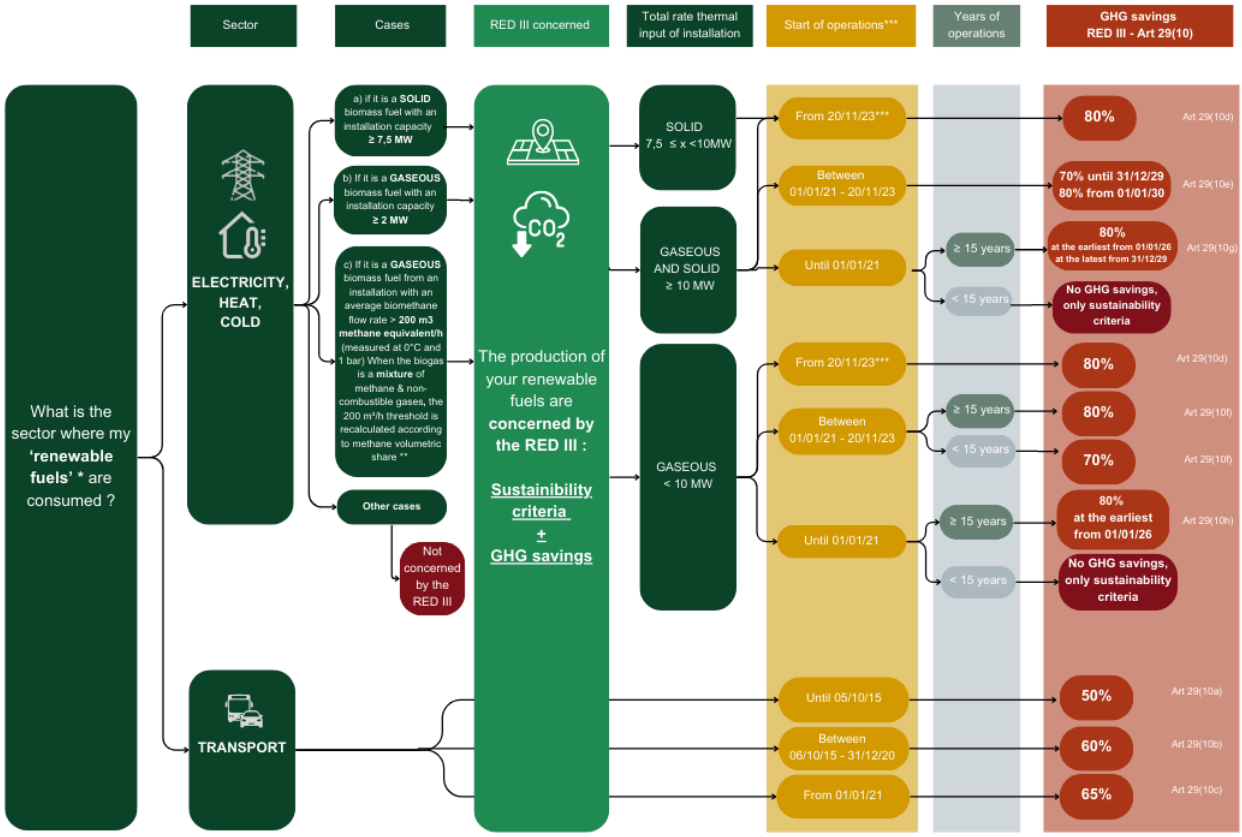


Figure 1: Scope of the RED III requirements and minimum greenhouse gas savings compared to those resulting from the use of biomass fuels in the transport sector and for electricity, heating, and cooling production a

**biofuels, bioliquids, biomass fuels and renewable fuels of non-biological origin;*

*** In the case of installations producing gaseous biomass fuels with the following average biomethane flow rate:*

(i) above 200 m3 methane equivalent/h measured at standard conditions of temperature and pressure, namely 0 °C and 1 bar atmospheric pressure;

(ii) if biogas is composed of a mixture of methane and non-combustible other gas, for the methane flowrate, the threshold set out in point (i), recalculated proportionally to the volumetric share of methane in the mixture.

**** **Until 31/12/2030**, the sustainability and GHG emissions saving criteria set out in Article 29 in its version in force on 29/09/2020 apply, **only if** support was granted before 20/11/2023 and that support was granted in the form of a long-term support for which a fixed amount has been determined at the start of the support period and provided that a correction mechanism to ensure the absence of overcompensation is in place.*

An installation shall be considered to be in operation :

- At the date when the production of heat and/or electricity began (export or self-consumption), or
  in the absence of self-consumption, from the relevant TSO/DSO formal record on which, the first date of the physical connection and the injection of biomethane or electricity into the respective grids is included, and or the injection off-grid, or through isolated local distribution networks of BioNGV or BioLNG and industrial or urban heat customers.

A processing unit may also be located at a first gathering point or at a point of origin for waste and residues, in which case the processing unit (last interface), and the first gathering point (collection interface) shall be treated as a single certified entity under both audit standards, provided that they both belong to the same operator.

Indeed, the operator must be certified against the two audit standards, 2BS-STD-01 (Raw material collection) and 2BS-STD-02 (Bioenergy production and/or trading and raw material trading).

A processing unit may be supplied by an independent certified FGP (First Gathering Point), supplying certified raw materials, i.e., agricultural biomass and or wastes and residues.

In the case of methanization, the operation of purifying biogas into biomethane is usually carried out on the same site, so a certificate can cover all operations on the site, provided that they all belong to the same economic operator.

The landfill is considered the point of origin of the landfill gas produced from waste on the site. Similarly, a wastewater treatment plant can be considered a waste's point of origin.

Biomethane can be transported to a customer by injection into the natural gas grid, where it is mixed with fossil natural gas. The natural gas grid does not need to be certified. Biomethane can also be compressed and stored or liquefied and stored to supply a refueling station for transport use (BioNGV or BioLNG). In its compressed or liquefied form, biomethane can be transported by truck.

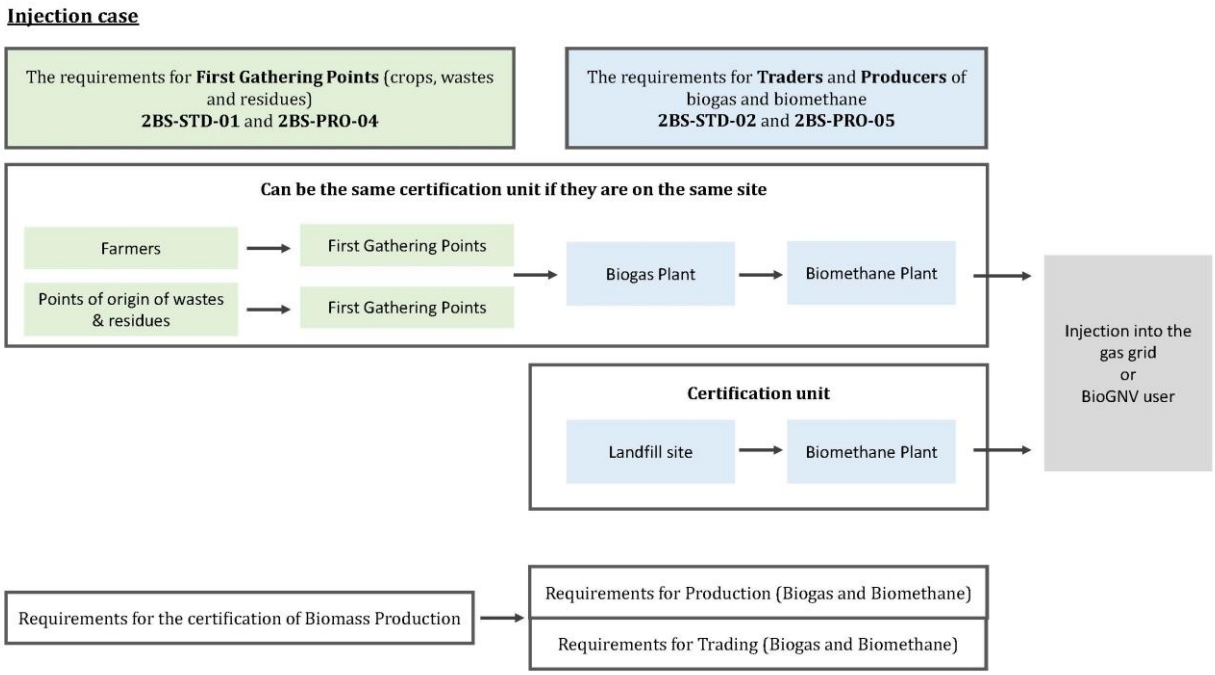
Regarding municipal waste, waste from economic activities, producers of electricity, heat, and/or cooling can be certified. Bioenergy producers inject renewable energy into the district heating or cooling network, supply it to industrial consumers, or to the electricity grid. The produced bioenergy may also be self-consumed by a processing unit to respond to its energy needs, for example.

In the case of mixed wastes, Member states may require operators to apply mixed waste sorting systems that aim to remove fossil materials to increase the biogenic share in these materials.

The 2BS Voluntary System documents also apply to the production of biogas and biomethane and production of bioenergy from biomass, namely:

- The **standard audit 2BS-STD-01**, relates to the collection of raw materials
- The **standard audit 2BS-STD-02,** relates to the production process of biogas and biomethane (finished products) and the trading of raw materials and finished products

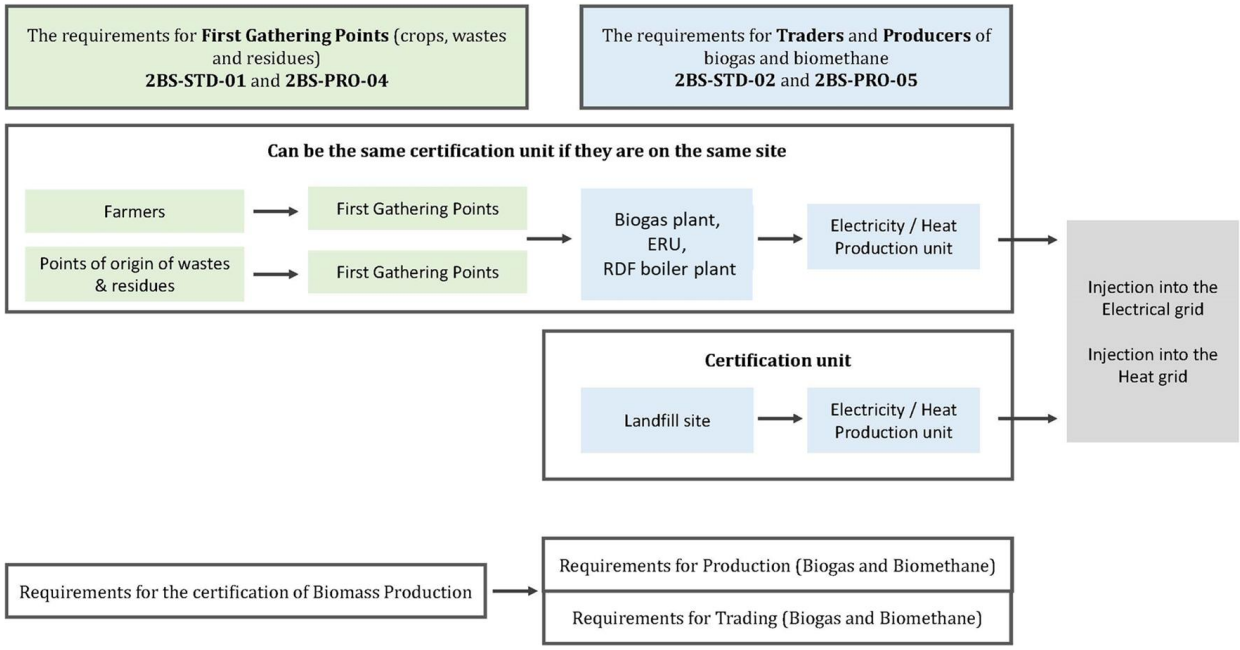
- The audit checklist relates to the application of the audit standards 2BS-STD-01 and 2BS-STD-02 to the biogas/biomethane and bioenergy production chain.
- Procedure 2BS-PRO-04, relating to the collection of waste and residues[4]
- The 2BS-PRO-02 procedure relating to the audit process
- Procedure 2BS-PRO-03 relating to the verification of GHG emissions reduction (%)



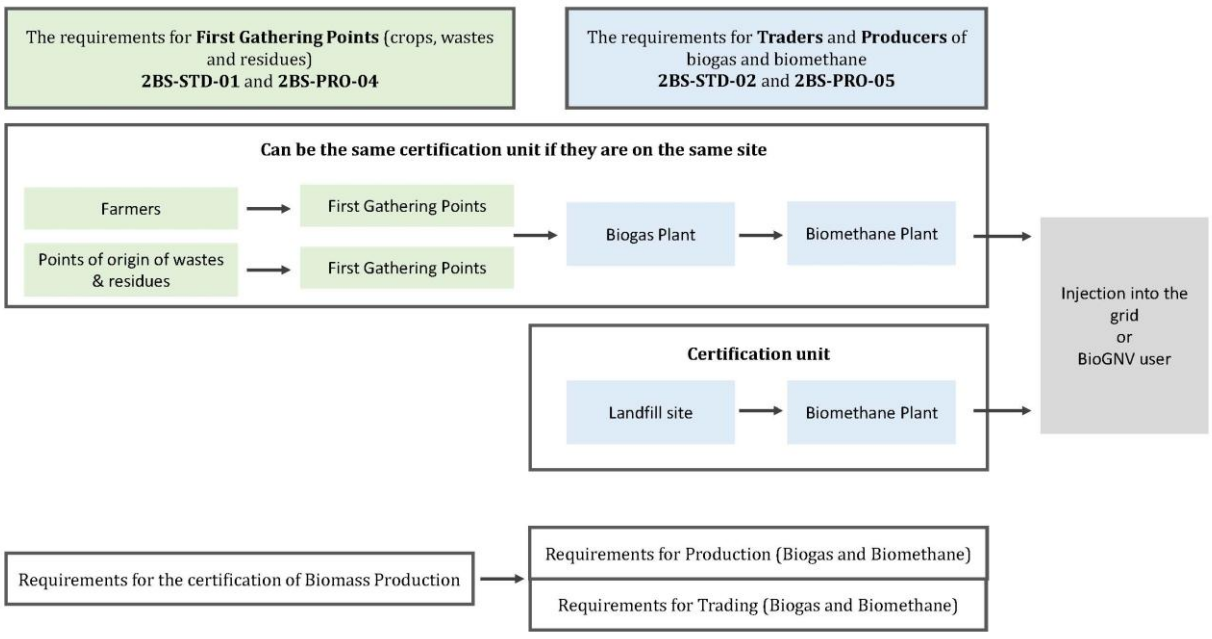
[4] Article 13 of the Implementing regulation (EU) 2022/996 does not make mandatory on-site audits of points of origin of waste and residues, nor the additional audit of points of origin 6 months after the initial audit

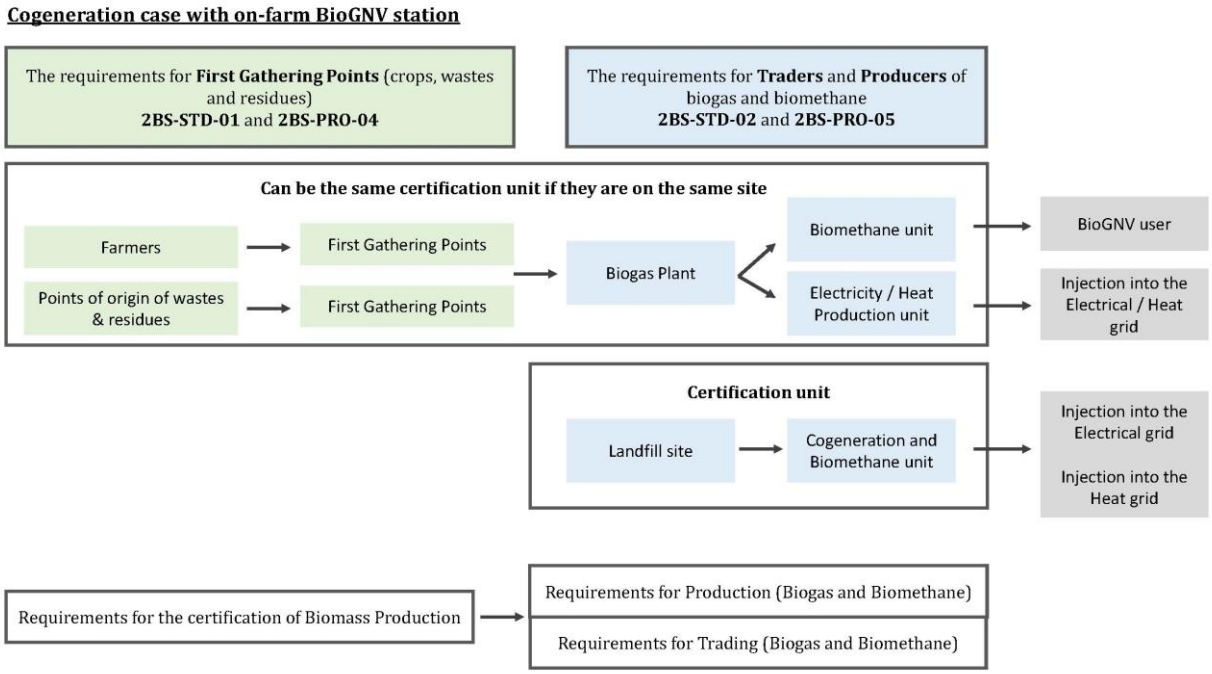
Revised RED EU/2018/2001 (RED III) - Requirements for the production of biogas and biomethane and production of electricity/heat/cold from biomass

Cogeneration case



Injection case with BioGNV station on site or biomethane production





3. Requirements for raw materials

Three types of raw materials are eligible:

- "Sustainable" agricultural biomass
- Waste and residues
- Landfill gas

3.1 Agricultural biomass

3.1.1 **Characteristics of sustainability** (main crops and intermediate crops)

1. Sustainability characteristics are defined in Article 29, paragraphs 2 to 7 (RED III); compliance verification is assessed according to audit standard **2BS-STD-01**, **Principle 3**, High Biodiversity Land, **Criteria 3.1, 3.2 and 3.3**

   Note that, in accordance with 2BS-STD-01 and indicators **3.2.5**, **3.2.6** and **3.2.7**

a. Grass silage from grasslands is an eligible feedstock for biogas and biomethane production, provided that:
   - The competent national authorities do not consider grassland to be biodiversity-rich grassland or that,
   - Evidence is provided that the harvesting of the feedstock is necessary to maintain the high biodiversity value status of the agricultural area.

b. Inputs grown on former grasslands may be eligible for "sustainable" status provided that:
   - The relevant national authorities will not have referenced these as high biodiversity value grasslands either in January 2008 or after that or that,
   - There is no evidence based on which the auditor can consider these areas to be high biodiversity value grasslands, either in January 2008 or later.

2. There is no tonnage limit for intermediate crops.

3.1.2 **Calculation of GHG emissions** (according to procedure 2BS-PRO-03)

1. GHG emissions from agricultural feedstock are defined in Article 30 and Annex VI, with the verification methodology described in Procedure 2BS-PRO-03;

2. Calculation of the reduction (%) of GHG emissions is optional for biogas/biomethane production plants (electricity/heat/cold use) whose operational starting date is before 1 January 2021 (see. scope section § 2);
3. Calculation of the reduction (%) of GHG emissions **must be taken into account** for; biogas/biomethane production plants:

- **50 %** for biofuels, bioliquids, biogas consumed in the transport sector and biomass fuels produced in installations in operation on or before 5 October 2015;

- **60 %** for biofuels, bioliquids, biogas consumed in the transport sector and biomass fuels produced in installations starting operation from 6 October 2015 until 31 December 2020;

- **65 %** for biofuels, bioliquids, biogas consumed in the transport sector and biomass fuels produced in installations starting operation from 1 January 2021;

- for electricity, heating and cooling production from biomass fuels used in installations that started operating after 20 November 2023, at least **80%**;
- for electricity, heating and cooling production from biomass fuels used in installations with a total rated thermal input equal to or exceeding 10 MW that started operating between 1 January 2021 and 20 November 2023, at least **70%** until 31 December 2029, and at least **80%** from 1 January 2030;
- for electricity, heating and cooling production from gaseous biomass fuels used in installations with a total rated thermal input equal to or lower than 10 MW that started operating between

1 January 2021 and 20 November 2023, at least 70% before they have been operating for 15 years, and at least **80 %** after they have been in operation for 15 years;

- for electricity, heating and cooling production from biomass fuels used in installations with a total rated thermal input equal to or exceeding 10 MW that started operating before 1 January 2021, at least **80%** after they have been operating for 15 years, at the earliest from 1 January 2026 and at the latest from 31 December 2029;

- for electricity, heating and cooling production from gaseous biomass fuels used in installations with a total rated thermal input equal to or lower than 10 MW that started operating before 1 January 2021, at least **80%** after they have been operating for 15 years and at the earliest from 1 January 2026.

3.2 Waste and residues - classification of raw material

1. It takes into account:
   - Definitions of Article 3 and principles of the waste hierarchy laid down in Directive 2008/98/EC, [5]
   - requirements of Article 13 of the implementing regulation, paragraphs 2 to 5 for heat and electricity uses and paragraphs 2 to 7 (RED III Annex IX Part A and Part B, detail in Annex IV of the implementing regulation) for transport uses,
   - requirements of the procedure 2BS-PRO-04;

2. Calculation of GHG emissions savings from waste and residues, including emissions associated with their transport, is optional for units whose operational starting date is before 1 January 2021 (electricity/heat/cold use); after this date, GHG emissions associated with the transport of waste and residues must be taken into account when this raw material is intended for units included in the scope of this procedure (cf. scope);

3. No emissions should be attributed to waste and residues for the waste treatment step (including forestry and agricultural residues), as they are considered to have zero emissions up to the point of collection. In this context, the “point of collection” is the point where the waste or the residue arises in the first place. For on-farm methanization units, the point of origin of the waste is also the point of collection (for livestock manure waste only).

4. Certain materials and substances may be defined as "waste and residues" by the decision of the Ministry concerned at the level of the Administration of a Member State.

For points of origin and collection points, the standard audit 2BS-STD-01 and the procedure 2BS-PRO-04 are applicable. Thus, emissions associated with the transport between a first gathering point and a the last interface must be taken into account. When the collection point is a landfill or an incinerator

[5] *La hiérarchie des déchets est respectée au moyen des autorisations administratives, telles que les arrêtés préfectoraux, par exemple.*

where the material is destroyed without any other recovery, these emissions shall not be considered. Moreover, in the case of waste generated in households, the point of origin could be a private or municipal entity collecting or receiving them.

- WWTPs are points of origin and can be certified as collection points
- Waste from a deconditioning process or a hygienization carried out on the methanization site is assigned GHG emissions (etd) equal to 0 because the point of departure is also the arrival point
- Concerning animal fats (C1, C2), rendering plants are collection points
- For livestock manure, farms are collection points
- The field is a point of origin of agricultural residues
- Storage silos are points of origin for agricultural waste & residues
- Industrial units (food processing, biofuel production, etc.) are points of origin for industrial waste
- Sorting centers and mechanical-biological treatment units are points of origin for waste known as "sorting rejects."
- The landfill is the point of origin of the landfill gas.

The first gathering point of agricultural waste and residues must provide a management plan to ensure that the removal of these materials does not negatively impact soil quality and carbon stock. Cross-check with criterion 3.4 of standard 2BS-STD-01 and section 4 of procedure 2BS-PRO-04.

The mass and dry matter content of all solid and liquid feedstocks must be recorded for each consignment of feedstock received by the processing plant.

4. Chain of Custody Requirements

4.1 Mass Balance Requirements

4.1.1 First gathering point (Collection Interface)

A mass balance relating to the supply and collection of raw materials is a requirement of the standard audit **2BS-STD-01.**

Its objective is to verify

1. The sustainability characteristics of the different consignments/types of agricultural biomass and the classification of the substances or objects as "waste or residues".

2. The mass balance within the appropriate time frame (**3 months for producers of waste and residues** and **12 months for producers of agricultural biomass only**). In the case of methanization, it is necessary to consider the relevant conversion factors between the inputs (of the period), the available stock (at the end of the period) on site and the consumption (of the period) at the level of the digester hopper. In the case of bioenergy producers, the mass balance needs to consider the inputs (of the period) and the produced energy taking into account the fraction of biomass, and thus the fraction of produced renewable energy.

3. Greenhouse gas emissions when the raw material falls within the scope of the procedure (see section 2).

4. The standard records that allow the compliance of the different consignments of raw materials with the audit requirements are identified in the various indicators of the audit standard (self-declarations, supplier lists, sustainability certificates, supplier contracts, delivery notes, weighing tickets, stock status, mass balance, etc.).

4.1.2 Biogas/biomethane Production Process (Last Interface)

A mass balance for the methanization process and the landfill gas recovery plant producing bioenergy is a requirement of the **2BS-STD-02** audit standard.

The balance of mass balance must be checked every **3 months.**

1. In addition to the general sustainability characteristics (e.g., feedstock type, quantity, country of origin/crop and GHG emissions, if applicable), this information should be included in the input sustainability statements and participate in the consolidation of the information to be provided by the last interface at the POS level, i.e., the "Proof of Sustainability" of the marketed biogas/biomethane.

2. When substrates are introduced and mixed in the digester, the consignment size must be adjusted according to their energy content; based on the methanogenic potential per substrate, the actual share of biogas produced per substrate can be determined.

3. After processing the feedstock, the information on the sustainability characteristics of the consignment is adjusted and assigned to the biomethane/biogas product by applying a conversion factor. These conversion factors are used to calculate the mass balance. The conversion factors can be determined experimentally and on the basis of literature values or laboratory analyses.

4. Mixing under the mass balance system is only possible if the raw materials and fuels belong to the same product group. Where raw materials belong to separate product groups, a separate mass balance will be used for each product group.[6]

A conversion factor for biogas/biomethane yield **should be** assigned to each type of raw material. The conversion factor represents the ratio between the mass of the product (biogas/biomethane) and the weight of the raw material entering the process. This can be achieved by using the methanogenic potential.

5. In the absence of monitoring, as explained above, the mass balance of the process can be carried out from the data supplied by the installation of energy meters (heat, gas, electricity meter of the primary energy, and the recovered power).

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[6] *'Product group' means raw materials, biofuels, bioliquids, non-gaseous biomass fuels with similar physical and chemical characteristics and similar heating values or gaseous biomass fuels, and LNG with similar chemical characteristics that all are subject to the same rules set out in Articles 7, 26 and 27 of Revised Renewable Energy Directive EU/2018/2001 (RED III) for determining the contribution of biofuels, bioliquids and biomass fuels towards achieving the targets for renewable energy;*

6. The last interface (the biogas/biomethane producer or the landfill gas recovery plant) must retrieve the following information from the network operator and must register

    a. For an injection unit: the amount of biomethane injected into the grid over a period of three months (mass balance), as well as the units of measurement.

    b. For a cogeneration unit: the quantity of useful electricity and/or heat injected into the grid over a period of three months (mass balance), as well as the units of measurement.[7]

    The above records/information shall be available to public authorities or network operators.

    In all cases, the producers must evaluate the technical losses and the consumption of the auxiliaries, and or fatal heat of the production unit. These consumptions are deducted from the quantity of energy injected.

7. Daily operation/production records must ensure that the production mass balance is updated and compliant to validate the information consolidated in the POS (Proof Of Sustainability) of the last interface.

    Given the particularities and complexity of the methanization process and landfill gas formation, namely:
    - The continuous nature of the biogas production process

    - In the case of methanization, the biogas produced at a time T1 is generated by a continuous feed rate of raw materials that are introduced into the digester in (T1 - residence time)[8]

    - The variability of the residence time of the raw materials for the same methanization unit and landfill depends on several factors, including the nature of the substrates to be degraded, the quantity of biomass and their reaction rates, the characteristics of the installations and the operating mode, among others

8. Both for gas losses and liquefaction, if an actual GHG value is used, the auditor shall verify the register of leak detection during the audit. Every year, leak detection is performed by a third party prior to the audit. The economic operator keeps a register of leak detections. In case of multiple detections in the same year, the most recent one is retained.

[7] *'useful heat' means heat generated to satisfy an economical justifiable demand for heat, for heating and cooling purposes;*
'useful electricity' includes the electricity sold to the network and consumed by the equipment
'useful biomethane' includes the biomethane sold and eventually used on site
[8] *Residence time: time of degradation of the raw material from the moment it enters the digester to the moment it becomes digestate*

9. **Clarification on gas grid losses and related to liquefaction**:

For liquefied NG or biomethane, in JEC Well-to-Tank report v5, there are available calculations for the options of liquefaction for sea transport and at the refueling station.

Please note that these figures may be reviewed upwards because of the upcoming update of Annexes V and VI of RED III in order to take fully into account the real fugitive emissions.

The assumed process for methane liquefaction is described for example in the "CBM" Excel sheet, in any xxLGx pathway (for example OWLG1 in cell B83). If no actual data is available, the electricity and LPG consumption (OWLG1, cell E69 and E70) can be used and multiplied by their emission factors.

For the electricity emission factors, the values from Annex IX the IR on sustainability certification can be used. See: https://publications.jrc.ec.europa.eu/repository/handle/JRC119036

For gas losses, the 2019 report which contains the calculations to obtain the default values in RED III contains an emission factor of 0.17 g CH4/MJ NG supplied. See: https://op.europa.eu/en/publication-detail/-/publication/7d6dd4ba-720a-11e9-9f05-01aa75ed71a1

In the case of landfill gas recovery facilities, only points 6, 7, 8, and 9 are applicable.
2BS adopts the following principles in the case of methanization:

a. The POS must be established without considering the residence time: a consignment of biogas produced during a given period must be associated with the raw material incorporated during the same period.

b. The management of the mass balance must follow the same rule, i.e., the inputs (raw materials) and outputs (biogas) of the anaerobic digestion process are measured over the same period, without considering the residence time of the raw material.

c. Estimates are allowed when the installations are subject to technical stops for maintenance or to constraints of seasonality and capacity of the network to absorb the production as well as installations security (flaring of biogas)[9]

d. The economic operator shall do a consistency check on the production of biogas/biomethane for one year of production to take into account the following elements:

- Operational Transition phases (start-up, for example),
- Variety of substrate digestion times, additional production valued outside the public support mechanism and not included in the scope of this reference,
- Variability in the expression of methanogen potentials,
- Self-consumption of biogas for the production of heat and electricity, etc."

In the case of landfill gas recovery facilities, only the principle c is applicable.

[9] *Non-impact flaring*

Other important details:

1. **When the biogas production is directly purified into biomethane or recovered in a unit producing electricity and/or heat on the same site**, a mass balance covering both installations is sufficient, without it being necessary to consider the quantities leaving the digesters entering the purifier or the engine, provided that both installations belong to the same operator.

2. **When part of the biogas is used for other purposes or additional biogas enters the scrubber from another source**, a separate mass balance is required for each facility, even if they belong to the same operator.

3. **If the biogas or biomethane is used for electricity or heat on-site**, the quantity used must be subtracted and not included in the mass balance.

4. **A biogas/biomethane tanker is considered a consignment**. Each consignment is documented by the producer, with a number assigned to it indicating its production date and indicating that it has not been injected into the gas system.

5. **When biomethane is injected continuously into a gas grid**, a consignment refers to the quantity of biomethane injected **over three months**. Each consignment of biomethane shall be documented by the producer, with a number assigned to it indicating its production date and that it has been injected into the gas grid.

6. **The mass balance of the operator's site must clearly distinguish** between the biogas/biomethane recovered directly on site (biomethane injected into the grid or biogas converted into heat and/or electricity) and the biogas/biomethane exported from the site by tanker or any other direct means of transport.

7. **These quantities are correlated with the consignment/contract numbers in the mass balance** so that auditors can verify and trace the quantities/consignment of biogas back to the amounts of sustainable feedstock to avoid double counting. A counting system for injected biomethane is available on-site. (Managed by the network operator or by a state-accredited body).

8. **If the producer has injected more biomethane or electricity and/or heat into the gas or electricity grid** than its sales contracts provide for at the end of the three-month mass balance period, then these volumes are integrated into the mass balance of this process.

9. **In case an economic operator processes different sources of (bio)methane into another fuel** (e.g., bio-methanol), evidence shall be checked to ensure an appropriate mass balance of bioenergy content claims that enter and leave the process. For example, if biomethane is sourced via a direct connection to a biomethane plant, it must be checked that the capacity coming from the plant is consistent with the claim made by the bio-methanol producer and that the biomethane raw material is not also claimed by another economic operator.

   In case of multiple inputs of methane, the renewable energy content of the resulting output (e.g., bio-methanol) could be subject to testing in accordance with the verification methods described in the Implementing Regulation (EU) 2022/996 on specific rules for co-processing (Article 23).

4.1.1 Process of Bioenergy Production (Final Interface)

A mass balance related to the process of producing energy in the form of electricity, heat, and cooling from biomass is a requirement outlined in the audit standard 2BS-STD-02.

The mass balance must be monitored **every three months** for waste and residues.

In addition to the general sustainability characteristics (such as the type of inputs, quantity, country of origin/crop, and greenhouse gas emissions, if applicable), this information must be included in the sustainability declarations of the inputs and contributes to consolidating the information that must be provided by the final interface at the POS level, i.e., the "Proof of Sustainability" for the electricity/heat/cooling produced from the biomass present in the inputs (in the case of waste, the biomass fraction must be communicated to calculate the share of energy considered renewable).

In the case of ERUs and RDFs boiler plants, the mass balance must specify the quantity of inputs of each type of waste and the biomass fraction present in these wastes, as well as the share of energy produced from these wastes.

The energy produced from the biomass fraction present in these wastes is considered renewable. Therefore, it is crucial to determine the biomass fraction, and the share of energy produced that corresponds to this biomass in order to assess the effective amount of renewable energy produced. The biomass fraction can be determined by using methods such as carbon-14 radiocarbon analysis (either upstream on incoming waste, if feasible, or on the combustion flue gases. The Lower Heating Values (LHV) of biomass-derived fuels can be determined through laboratory analyses using methods such as calorimetry or found in specific technical databases that list values for different types of biomasses and waste.

For boiler plants using Refuse-Derived Fuels (RDF), these data can be obtained for each batch received, as RDF meets specific specifications defined by national authorities as well as European definitions, making RDF very homogeneous in terms of physico-chemical properties.

In contrast, municipal waste and waste from economic activities are much more variable in terms of physico-chemical properties because it depends on consumption traits and sorting practices by households as well as economic operators. This variability makes it very heterogeneous in terms of physical properties in time, making it impossible to carry out the reliable determination of the Lower Heating Value (LHV) and biogenic carbon content. That is why operators handling non-recyclable waste may use default values for the biomass fraction as well as for the LHV, based on one of the following sources:

- Official statistical data from government agencies that are available and of good quality.
- If no official statistical data from government agencies is available, statistical data published by independent organizations may be used. [10]
- If these values are not available, figures can be based on peer-reviewed scientific work, provided that the data falls within the range of commonly accepted figures.

[10] *In France, the UIOM 14C Program - Measurement Campaign on ERUs and RDF boiler plants serves as a reference for default values. The CO2 measured in the flue gases from combustion is 58% biogenic in origin and 42% fossil in origin.*

4.1.2 Trade (Raw material, intermediary products, and final products)

A mass balance relating to the trade of raw materials, intermediary products and final products is a requirement of the standard audit **2BS-STD-02.**

Traders who take legal ownership and physical possession of the product while not processing the product shall be independently verified and certified before they can make any sustainability claim.

Facilities blending biofuels, bioliquids, or biomass fuels are not classified as processing units. Instead, they are certified under the category of "Traders with storage". In the case of gaseous biomass fuels mixed with fossil fuels, such as biomethane injected into the natural gas grid, sustainability declarations can be issued for any consignment withdrawn from the grid, provided an equivalent quantity of biomethane was previously injected. The corresponding sustainability characteristics must be attributed to the consignments entering and exiting the grid.

Its objective is to verify

1. The mass balance within the appropriate time frame (**3 months**), taking into account the relevant conversion factors between the inputs (of the period), the available stock (at the end of the period) on site, and the consumption (of the period).

2. The accuracy and evidence of the feedstock received (identification of the raw material, tonnage, GHG emissions, certificate number of the supplier)

3. The update of the sustainable feedstock on site

4.2 Measurement Requirements

1. Biogas streams, such as those from anaerobic digestion facilities and those captured in non-hazardous waste storage facilities, shall be measured by volume. The pressure and temperature at which the flow measurements are made must be recorded so that a mass flow can be calculated.

2. In the case of methanization, the CO2 content of the biogas **must be measured** regularly to obtain a mass flow of biomethane or electricity.

3. The amount of biomethane transported by tanker to customers **must** also be recorded.

4. The frequency of measurements shall not be less than the frequency stipulated in the contracts with the purchasers of electricity and/or heat or biomethane if contractually agreed. In any case, the measurements must be carried out at least every three months.

   The accuracy and frequency of gas measurement required in purchase contracts is the factor that will limit the accuracy with which the mass balance can be demonstrated.

4.3 Traceability

Sustainability characteristics and greenhouse gas emission reductions shall be recorded in the Union Database when biomethane is used in the transport sector.

For the purpose of entering data into the Union database, the interconnected gas system shall be considered to be a single mass balance system. Data on the injection and withdrawal of renewable gaseous fuels shall be provided in the Union database. Data on whether support has been provided for the production of a specific consignment of fuel, and if so, on the type of support scheme, shall also be entered into the Union database.

Economic operators shall, in the event that the Member State decides to complement a mass balance system by a system of guarantees of origin, enter into the Union database data on the transactions made and on the sustainability characteristics and other relevant data, such as greenhouse gas emissions of the fuels up to the injection point to the interconnected gas infrastructure.

For economic operators who are under the legal obligation to fill in transactions in the Union Database, certification bodies shall be required to verify the accuracy and completeness of information entered by economic operators into the Union database or relevant national database. To this end, auditors shall:

1. Ensure that economic operators correctly enter all relevant information [11] in the Union database or relevant national database.
2. Verify that the entries in the Union Database (or relevant national database) of the certified economic operators correspond with the figures that are part of the economic operator's bookkeeping and net mass balance data or other encoded information on their entities or sites.

Suppose gaseous fuels are withdrawn from an interconnected infrastructure and further transformed into gaseous or liquid fuels. In that case, the point of final consumption is considered to be the point of final consumption of the gaseous or liquid fuels. In such a case, all intermediary stages from the withdrawal of the gaseous fuels from the interconnected infrastructure until the point of final consumption of the gaseous or liquid fuels have to be registered in the Union Database.

5. GHG emissions and calculation method

1. Verification of the calculation of GHG emissions is described in procedure 2BS-PRO-03 and Annex VI of RED III.

2. If biomethane is used for heat, a default GHG value is not available, and a calculation must be performed.

3. If biogas is recovered as electricity and/or heat, a default GHG value is not available, and a calculation must be performed.

[11] *Relevant information means the transactions made and the sustainability characteristics of the fuels subject to those transactions, including their life-cycle greenhouse gas emissions, starting from their point of production to the moment they are placed on the market in the Union.*

4. The GHG emission value of the main and intermediate crops used as feedstock for biogas must be stated on the sustainability documentation accompanying each consignment. These shall be calculated and justified by the first gathering points unless available default values are used.

5. Waste and residues are considered to have no greenhouse gas emissions throughout the life cycle up to the collection process of these materials (at the point of origin), whether or not they are processed into intermediate products before being transformed into a final product. For more details, see 2BS-PRO-03. Therefore, in the case of the supply chain of waste and residues for the production of biomass fuels (such as biogas and biomethane) and bioenergy production (electricity/heat/cooling), the ep factor is considered zero for all upstream treatment activities (sorting, shredding, hygienization, massification, compacting, etc.). However, it must be calculated during the production of biomass fuels in the case of anaerobic digestion in a methanization unit.

6. Emissions from carbon stock changes due to land use change (**e_l factor**) are attributed to any feedstock grown on land that has had permanent grassland status since January 2008.

7. Emissions associated with the **transport of solids and liquid raw materials** should be included.

8. **Off gas, NO_x and CH_4 at the cogeneration exhaust gas, flare emissions and digestate emissions to the atmosphere must be taken into account in the calculation of GHG emission reductions**. It is possible to use standard factors for the sector[12] that are consistent with the technical characteristics of the installations (digestate storage method) and the regulations in force.

9. **GHG emissions can be attributed to digestate used as fertilizer resulting from biogas production.** The allocation is based on the relative energy contents of digestate and biogas. The energy content of the digestate must be based on the literature values or measurements, which will be verified by the auditor.

10. Any change in the parameters to be taken into account in the calculation of greenhouse gas emissions must be justified (data from the literature, change in the operating context, results of analyses/measurements performed on the site).

11. Where **emissions savings** deviate significantly from typical values (**i.e., greater than 10%**), or calculated actual values of emissions savings are abnormally high (**greater than 30% deviation from default values**), the report must include information that explains these deviations. Certification bodies must immediately inform 2BSvs of such deviations.

12. Municipal solid waste are exempted from the GHG emissions saving criteria.

13. The emissions due to transport (etd) for the flux of non-recyclable waste sent to ERUs is considered zero, since its primary purpose is the disposal of waste by elimination.

[12] *RED III reference value: 97%; newer treatment technologies allow acceptance of reference values between 99.5 and 99.8*

14. The emissions due to transport (etd) for landfill gas should only be considered when a gas consignment is sent to another economic operator that is not located on the same site as the landfill.

15. Regarding the production of electricity, heat, and/or cooling by Energy Recovery Units (ERUs), boiler plants using Refuse-Derived Fuels (RDF), as well as facilities utilizing biogas, the greenhouse gas emission factor for gases other than CO2 (notably for N_2O and CH_4) is often considered negligible. In fact, N_2O and CH_4 emissions are deemed insignificant in this type of process, largely due to modern combustion and gas treatment technologies that minimize these emissions. In contrast, for installations equipped with fluidized beds or using SNCR urea technology for NOx reduction, the measured N_2O emissions must be taken into account (see the latest version of the Incineration BREF).

16. e_u is considered zero for biofuels and bioliquids. Emissions of CO2 from fuel use for biomass fuels are zero. However, the greenhouse gas emissions other than CO2 (N2O and CH4) from biomass fuels must be calculated.

6. Sustainability Statements

1. The traceability of biogas and biomethane production and bioenergy production flows from the point of origin/sustainable agricultural land from which the raw materials are derived must be ensured as provided for in the audit standards **2BS-STD-01** and **2BS-STD-02**.

2. The transfer of sustainability characteristics and GHG emissions (when the operational starting date of installations is after 1 January 2021) must always be associated with the transfer of physical material. The information includes:

    a. Country of origin of biomass used as feedstock for biogas/biomethane.
    b. GHG emissions in gCO2/kg dry matter or product default values (where applicable);
    c. Quantity and dates of receipt and transfer between interfaces

3. The last interface in the supply chain of biomass fuels for transport, electricity, heat and cold uses shall issue a proof of sustainability (POS) for each consignment. This must include:

    a. the country of origin of the biomass,
    b. the quantity transferred to the grid (or the amount of the consignment)
    c. GHG emissions in gCO2/MJ, if applicable,
    d. whether these are calculated or default values, and
    e. the operational starting date of the processing unit; this corresponds to the first injection of electricity, heat or biomethane into the grid.

    POS templates are available, depending on the uses and the scope of certification, including the operational starting date, the installations capacity and the use of biogas/biomethane.

4. When default values are used, the description of the technology specified in Annex VI to the RED III **shall** also be included and verified by the auditor. This **must** be sent to the national authorities.

5. Sustainability characteristics and greenhouse gas emission reductions shall be recorded in the Union Database, or relevant national database, when biomethane is used in the transport sector.

7. Audit and certification requirements

1. The audit procedure is described in 2BS-PRO-02 - Requirements for the Certification Process.

2. The auditor verifies that the measurements of biomethane/biogas/electricity/heat flows have all been recorded and that the mass flows of biogas/biomethane or waste have been measured and calculated correctly.

3. The audit of mass balances is described in section 4 of the audit procedure.

    a. For collection sites, the mass balance of the first gathering point must reflect the balance between the raw materials collected, the state of the stock and their consumption during a given period

    b. For injection sites, the mass balance of the site must clearly distinguish between biomethane/biogas injected into the grid, the biomethane/biogas used for self-consumption (BioNGV, boiler, cogenerator associated with the production unit) and the biomethane/biogas exported by tanker truck or any other means of road transport.

    c. For cogeneration sites and bioenergy producers, the mass balance of the site must clearly distinguish between

        - Biogas or biomass fraction of waste entered for the production of heat and electricity
        - The useful electricity and the electricity used for the auxiliaries or the self-consumption of the unit
        - The useful heat and the heat produced for the self-consumption of the processing unit (heating of the digesters in the case of methanization)
        - And the biogas produced for the BioNGV fuel use (self-consumed or sold)

    d. For heat production sites, the mass balance of the site must clearly distinguish between:
        - Useful heat (exported) and heat produced for self-consumption of the heat production facility.

    These quantities are correlated with the shipment/contract numbers in the mass balance so that auditors can verify and trace the biogas or waste quantities/shipments to the amounts of the raw materials in order to avoid double counting.

The auditor verifies these quantities and the mass balances of the site.

4. The audit requirements for the first gathering point and last interfaces (biogas/biomethane producers or bioenergy producers) are summarized in the table below in terms of applicable 2BS audit standards and procedures.

5. Economic operators are required to keep all evidence necessary to comply with the RED III and the Implementing Regulation (EU) 2022/996 for a minimum of 5 years or longer where it is required by the relevant national authority.

Chain of custody	**Supply chain Verifications**	**Standards / Procedures**	**GHG emissions Verifications**
Collection Interface of raw material for the production of biogas/biomethane. Collection and treatment plants of waste and residues.	Sustainability characteristics of raw material GHG emissions (if applicable) Tonnages collected The good performance of the mass balance Control of self-declarations / suppliers Scheduling and conducting internal audits Responsibilities and training of actors	2BS-STD-01 (Standard) 2BS-PRO-02 (Audit) 2BS-PRO-03 (GHG) 2BS-PRO-04 (Waste and Residues) 2BS-PRO- 05	If applicable • eec • el • esca • etd
Point of origin of solid/liquid waste-residues for biogas production	The classification of raw material as waste & residue GHG emissions (if applicable) Tonnages collected The good performance of the mass balance Control of self-declarations/ suppliers Scheduling and conducting internal audits Responsibilities and training of actors	2BS-PRO-4 (Procedure)	GHG emissions are associated with the transport (etd) of waste and residues between the point of origin and the last interface when the latter is not a site of destruction/incineration/landfill of the product

Biogas/biomethane production units	The correct deployment of the mass balance. All the information in the POS associated with the biogas/biomethane consignments is delivered and consistent with the established contracts and the characteristics of the installation.[13]	2BS-STD-02 (Standard) 2BS-PRO-02 (Audit) 2BS-PRO-03 (GHG) 2BS-PRO- 05	Reduction % in GHG emissions by installations characteristics
Trading of sustainable raw materials between certified entities, i.e., interfaces for the collection and production of biogas/biomethane.	The validity of certificates and the scope of certified interfaces. The correct deployment of the mass balance.	2BS-STD-02 (Standard) 2BS-PRO-02 (Audit)	
Landfill gas recovery plant producing bioenergy or biomethane	The correct deployment of the mass balance of landfill gas. All the information in the POS associated with the biomethane or bioenergy consignments is delivered and consistent with the established contracts and the characteristics of the installation.[14]	2BS-STD-02 (Standard) 2BS-PRO-02 (Audit) 2BS-PRO-03 (GHG) 2BS-PRO- 05	
Incinerator treating waste and producing bioenergy	The correct deployment of the mass balance of the waste inputs. All the information in the POS associated with the bioenergy consignments taking into account the biomass fraction of waste is delivered and consistent with the established contracts and the characteristics of the installation.	2BS-STD-02 (Standard) 2BS-PRO-02 (Audit) 2BS-PRO-03 (GHG)	Eu emissions of non-CO2 molecules, if applicable.

[13] *Operational starting date, capacity of installations and use of biogas/biomethane*
[14] *Operational starting date, capacity of installations and use of landfill gas or production of biomethane*

		2BS-PRO- 05	
Boiler plant using Refuse-Derived Fuels to produce bioenergy	The correct deployment of the mass balance of the waste inputs. All the information in the POS associated with the bioenergy consignments taking into account the biomass fraction of waste is delivered and consistent with the established contracts and the characteristics of the installation.	2BS-STD-02 (Standard) 2BS-PRO-02 (Audit) 2BS-PRO-03 (GHG) 2BS-PRO- 05	Etd from point of origin up to the boiler plant

8. Definitions

All terms have the same meaning defined in other 2BS Voluntary Program documents.

"Raw material" means substances that have not yet been processed into fuels, including intermediate products;

"Waste" means waste as defined in point (1) of Article 3 of Directive 2008/98/EC, excluding substances that have been intentionally modified or contaminated to meet this definition.

"Residue" means a substance that is not the end product(s) that a production process directly seeks to produce; it is not a primary aim of the production process, and the process has not been deliberately modified to make it;

"Food and feed crops" means starch-rich crops, sugar crops or oil crops produced on agricultural land as the main crop, excluding residues, waste or lignocellulosic material and intermediate crops, such as catch crops and cover crops, provided that the use of such intermediate crops does not trigger demand for additional land.

"First gathering point" means a storage or processing facility managed directly by an economic operator or other counterparts under a contractual agreement that is sourcing raw material directly from producers of agricultural biomass, forest biomass, wastes and residues or, in the case of renewable fuels of non-biological origin, the plant producing such fuels.

"Grassland" means terrestrial ecosystems dominated by herbaceous or shrub vegetation for at least 5 years continuously. It includes meadows or pasture that is cropped for hay but excludes land cultivated for other crop production and cropland lying temporarily fallow. It further excludes continuously forested areas as defined in Article 29(4)(b) of Directive 2009/28/EC unless these are agroforestry systems which include land-use systems where trees are managed together with crops

or animal production systems in agricultural settings. The dominance of herbaceous or shrub vegetation means that their combined ground cover is larger than the canopy cover of trees;

"Human intervention" means managed grazing, mowing, cutting, harvesting or burning;

"Natural highly biodiverse grassland" means grassland that:

(a) would remain grassland in the absence of human intervention; and
(b) maintains the natural species composition and ecological characteristics and processes;

"Non-natural highly biodiverse grassland" means grassland that:

(a) would cease to be grassland **in the absence of human intervention**; and
(b) is **not degraded**, that is to say, it is not characterised by long-term loss of biodiversity due to for instance overgrazing, mechanical damage to the vegetation, soil erosion or loss of soil quality; and
(c) is **species-rich**, that is to say, it is:

(i) a **habitat** of significant importance to critically endangered, endangered or vulnerable species as classified by the International Union for the Conservation of Nature Red List of Threatened Species or other lists with a similar purpose for species or habitats laid down in national legislation or recognised by a competent national authority in the country of origin of the raw material; or
(ii) a **habitat** of significant importance to endemic or restricted-range species; or
(iii) a **habitat** of significant importance to intra-species genetic diversity; or
(iv) a **habitat** of significant importance to globally significant concentrations of migratory species or congregatory species; or
(v) a **regionally** or **nationally significant** or **highly threatened** or **unique ecosystem**.

"Species -Rich", is a land that is:

- a habitat of significant importance to critically endangered, endangered or vulnerable species as classified by the International Union for the Conservation of Nature Red List of Threatened Species or other lists with a similar purpose for species or habitats laid down in national legislation or recognised by a competent national authority in the country of origin of the raw material; or
- a habitat of significant importance to endemic or restricted-range species; or
- a habitat of significant importance to intra-species genetic diversity; or
- a habitat of significant importance to globally significant concentrations of migratory species or congregatory species; or
- a regionally or nationally significant or highly threatened or unique ecosystem.

(Source: Commission Regulation (EU) No 1307/2014)

"Intermediate crops " means crops, such as catch crops and cover crops that are grown in areas where due to a short vegetation period the production of food and feed crops is limited to one harvest and provided their use does not trigger demand for additional land, and provided the soil organic matter content is maintained,. This definition is pending clarified guidelines from the EU Commission.

"Mix of raw material for further processing" means the physical mixing of raw material **at the fuel production plant** for the sole purpose of producing biofuels, bioliquids, or biomass fuels.

"Point of origin"[15] means the place where the waste and residues are produced.
For example, the point of origin of,

- an industrial residue is a plant where that residue is generated
- an agricultural crop residue is the crop field or farm
- residues from aquaculture, fisheries, and forestry are the equivalent of the farm or crop intended for agriculture.
- grape marc is the presses
- wine lees are fermentation tanks
- used cooking oils are restaurants, virgin oil for frying or cooking food, municipal collection, private households, etc.
- Animal fats/tallow are the rendering sites
- Landfill gas is the landfill site itself

"Product group" means raw materials, biofuels, bioliquids, non-gaseous biomass fuels with similar physical and chemical characteristics and similar heating values or gaseous biomass fuels, and Bio-LNG with similar chemical elements that all are subject to the same rules set out in Articles 7, 26 and 27 of Revised Renewable Energy Directive EU/2018/2001 (RED III) for determining the contribution of biofuels, bioliquids and biomass fuels towards achieving the targets for renewable energy.

"Biogas" means gaseous fuels produced from biomass.

"**Cogeneration**" means the simultaneous generation in one process of thermal energy and electricity and/or mechanical energy.

"Useful heat" means the heat generated to satisfy an economically justifiable demand for heat, for heating and cooling purposes; it includes heat recovered on hygienization, sold to a third party or recovered on site outside the heating of digesters

"Useful electricity" includes electricity sold on the grid and consumed by equipment. »

"Useful biomethane" includes biomethane sold and possibly consumed on-site.

"Union database" means the database provided for in Article 31, point a of Revised Renewable Energy Directive EU/2018/2001 (RED III);

……

[15] *Article 13, paragraph 2 of the Implementing regulation (EU) 2022/996*