



2BSvs voluntary scheme

REQUIREMENTS FOR MASS BALANCE SYSTEM

Note on status of this document

This reference document is an integral part of the 2BSvs voluntary scheme developed by the Consortium 2BS with the technical support of Bureau Veritas. The reviewed version of the initial document approved by the European Commission, has been validated by the Consortium on 15th of July, 2012, to be presented once again to the European Commission for formal recognition in conformity with the requirements of the European Directive 2009/28/EC.

This review aims to integrate in the 2BSvs scheme the 2BSvs methodology to calculate the greenhouse gas emissions.



2BSvs Biomass Biofuels Sustainability voluntary scheme Requirements for Mass Balance System

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Rév. : V1.8
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Introduction

The voluntary scheme 2BSvs has been developed to allow biomass producers, 1st gathering entities and economic operators along the biofuels supply chain to demonstrate the sustainability of their products in conformity with the European Union Directive 2009/28/EC.

The scheme has been designed to cover all the requirements of the Directive 2009/28/EC and related EC Communication with the exception of the requirements related to high biodiversity grassland (EU Directive 2009/28/EC, article 17.3.c) pending an official definition of high biodiversity grassland by the European Commission, by:

- Covering all the sustainability criteria of the Directive 2009/28/EC (GHG emission savings, Lands with high biodiversity values with the exception of high biodiversity grassland, Lands with high carbon stocks and peatlands).
- Ensuring that 1st gathering entities and economic operators provide accurate and reliable information regarding the origin of the biomass and/or biofuels in conformity with the sustainability criteria of the Directive 2009/28/EC.
- Ensuring independent auditing of the systems used by 1st gathering entities and economic operators to verify that they are accurate, reliable and protected against fraud.
- Ensuring that 1st gathering entities and economic operators participating in the Scheme have an auditable system in conformity with points 2 & 5.2 of Module D1 of Annex II of the Decision on a Common Framework for the Marketing of Products, and have accepted the responsibility for preparing any information related to the auditing of such evidence.
- Ensuring that the biomass producers, 1st gathering entities and economic operators use an appropriate mass balance system in conformity with the Directive 2009/28/EC article 18.1.

The requirements for mass balance systems have been developed as an integral part of the Scheme developed by the Consortium 2BS with the technical support of Bureau Veritas and are included in 2BS-STD-01 for biomass producers and 1st gathering points and in 2BS-STD-02 for the rest of the supply chain. These requirements apply to legal entities within the biofuels supply chain that take legal ownership and physical possession of biomass and/or biofuels, and/or any other related products produced in compliance with the sustainability criteria of the European Directive 2009/28/EC and point 5.2 of Module D1 of Annex II of the Decision on a Common Framework for the Marketing of Products.

Economic operators taking legal ownership and physical possession of the product throughout the biomass and biofuels supply chain shall be independently verified by an approved Verification Body against the requirements set in this document. These legal entities cannot make any claim regarding the sustainability of the product (biomass and/or biofuels) before an independent verification audit and a certificate has been awarded by an approved independent Verification Body.

Entities that take physical possession but do not take legal ownership of the product do not need to be independently verified by an approved Verification Body. However, these entities can be covered under the scope of verification of the relevant economic



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operator. Legal entities that have not been independently verified cannot make claims regarding the sustainability characteristics of the product (biomass and/or biofuels). The last economic operator in the supply chain shall ensure that it has access to relevant information covering the whole supply chain so that the sustainable origin of the biomass can be demonstrated.

This document is an integral part of the 2BSvs voluntary scheme developed to evaluate the sustainability of biofuels and shall not be used to evaluate 1st gathering entities and their related biofuels producers without implementing all the relevant procedures and requirements of the 2BSvs voluntary scheme.



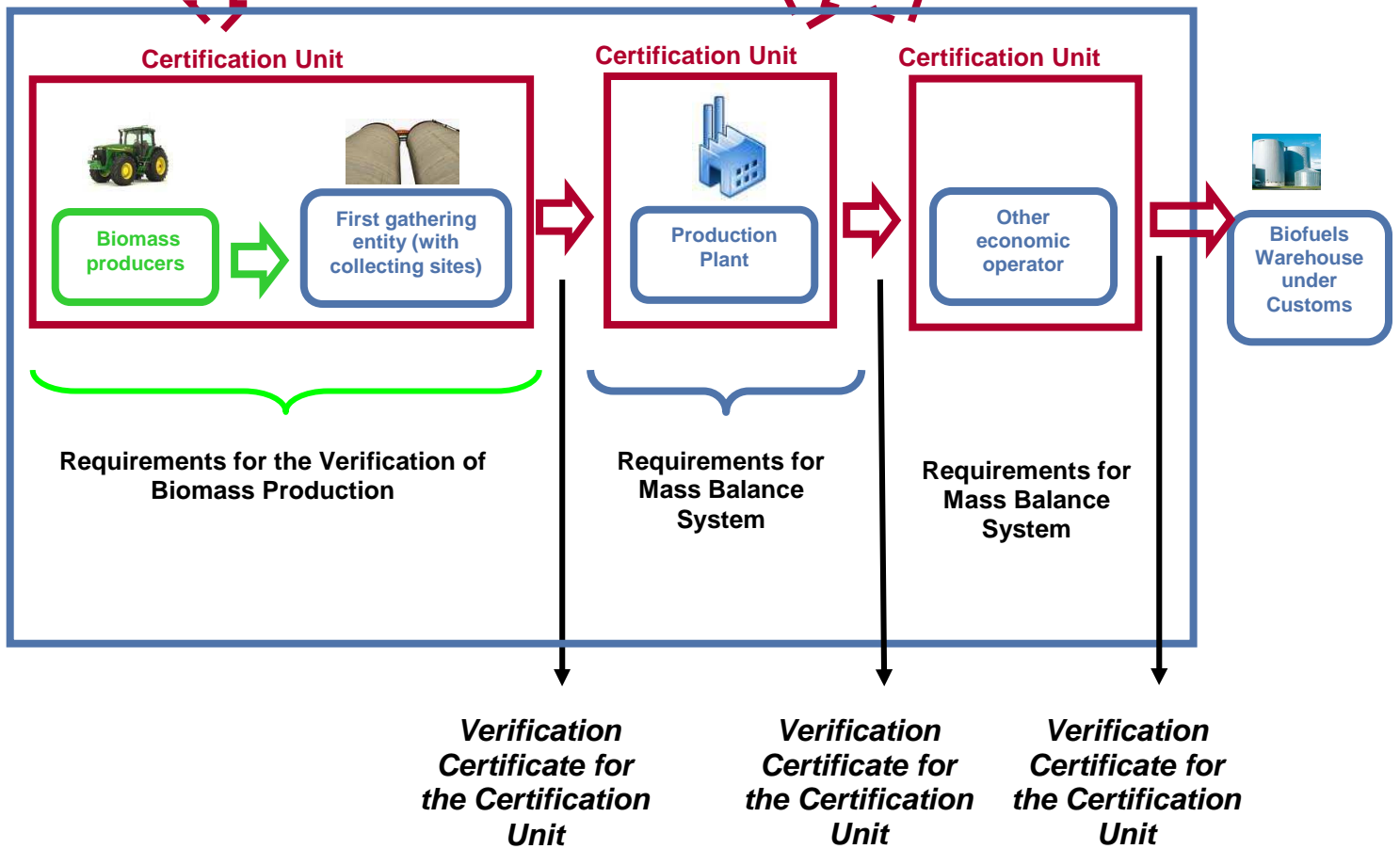
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The Requirements for Mass Balance System for biomass producers and 1st gathering points are defined in 2BSvs-STD-01, under Principle 1

The Requirements for Mass Balance System defined in this document apply to the economic operators in the sustainable biofuels' supply chain.





Principle 0: Internal management and monitoring system

*The economic operator **shall** have available and up-to-date records of all data and information required to demonstrate conformity with the EU Directive 2009/28/EC.*

Criterion 0.1: The economic operator applying to be verified for compliance **shall** define the unit of verification.

Indicator 0.1.1 (Critical Indicator): The economic operator **shall** be registered as a legal entity in compliance with the relevant national requirements.

- **Verifier:** Legal registration document, or
- **Verifier:** Legal registration number, or
- **Verifier:** Legal registry of competent authority.

Indicator 0.1.2 (Major Indicator): The economic operator **shall** specify and document the unit of verification and procedures for the activities and sites covered by the system developed to demonstrate conformity with the European Directive 2009/28/EC.

- **Verifier:** List of activities, and
- **Verifier:** Procedures, and
- **Verifier:** Mapping of the processes and facilities, when available, and
- **Verifier:** List of all sites covered, including storage and subcontractors.

Indicator 0.1.3: The economic operator **shall** take legal ownership of the biomass and/or biofuels.

- **Verifier:** Contract, or
- **Verifier:** Delivery note, or
- **Verifier:** Invoice, or
- **Verifier:** Bill of lading.

Criterion 0.2: The economic operator **shall** have access to relevant and detailed information regarding the origin of the biomass and/or biofuels through the centralised database of valid certificates and relevant information presented on or associated with the sales documentation. The economic operator may perform a risk analysis and assessment.

Indicator 0.2.1: After conducting a risk analysis and assessment, the economic operator **shall** specify the data, documents and/or records needed for its suppliers of biomass and/or biofuels to demonstrate that the origin of the product is in conformity with the European Directive 2009/28/EC and that it can be considered as sustainable. Such evidence shall be based on relevant official records, data or documents that can be independently verified.



- **Verifier:** List of data, documents and/or records, or
- **Verifier:** Valid certificate of independent verification under the Scheme, or
- **Verifier:** Valid certificate delivered under another voluntary scheme approved by the European Commission.

Indicator 0.2.2: The economic operator **shall** have access to a list of the voluntary verification schemes that have been approved by the European Commission to demonstrate conformity with the sustainability requirements of the European Directive 2009/28/EC, whenever purchasing material certified under any of these approved voluntary schemes.

- **Verifier:** List of approved voluntary certification schemes, and
- **Verifier:** Access to relevant Websites, including Website from European Commission., and
- **Verifier:** Access to relevant information to check the validity of sustainability certificates.

Indicator 0.2.3 (Major Indicator): After conducting a risk analysis and assessment, the economic operator **shall** establish a list of all its suppliers of biomass claiming sustainability. This list shall be kept as part of the records of the entity and shall be reviewed and updated at least once a year.

- **Verifier:** Detailed list with for each supplier the name and address, and
- **Verifier:** Access to relevant Websites to check validity of certificates.

Indicator 0.2.4: The economic operator **shall** request from and record for each one of its suppliers documented evidence of conformity with the sustainability criteria such as copy of a valid conformity certificate before buying and/or accepting biomass and/or biofuels claiming sustainability, including information on the country of origin and sustainability characteristics throughout the supply chain.

- **Verifier:** Copy of valid certificate, or
- **Verifier:** Contract with appropriate clause, or
- **Verifier:** Amendment to existing contract.

Indicator 0.2.5: The economic operator **shall** have documented procedures to check at least once a year that its suppliers of biomass and/or biofuels claiming sustainability are in conformity with the European Directive 2009/28/EC through valid certificates, that they control and keep records on the country of origin of the biomass and/or biofuels, and that they have received valid certificates of conformity from their suppliers of biomass and/or biofuels.

- **Verifier:** Copy of valid certificates, or
- **Verifier:** Access to relevant Websites to check validity of certificates.



Criterion 0.3: The economic operator **shall** have relevant and detailed information regarding the origin, type and volume of biomass and/or biofuels supplied (*Note: This Criterion 0.3 needs to be audited within the context of the requirements defined in other Criteria under Principle 1 below*).

Indicator 0.3.1: The economic operator **shall** have implemented a procedure to record the information, data and documents required to receive, check the country of origin and classify biomass and/or biofuels as sustainable. This information should be monitored by the economic operator to ensure it is accurate and reliable through internal monitoring and verification activities.

- **Verifier:** List with information, data and documents required, and
- **Verifier:** Documented procedure and evidence that procedure has been implemented, and
- **Verifier:** Relevant Websites indicating valid certificates.
- **Verifier:** Documents such as invoices, bill of lading.

Indicator 0.3.2 (Major Indicator): The economic operator **shall** have records of relevant information for each batch, consignment and/or volume of biomass and/or biofuels received. This information should be monitored by the economic operator to ensure it is accurate and reliable through internal monitoring and verification activities.

- **Verifier:** Records including country of origin, sustainability and GHG characteristic whenever relevant, and
- **Verifier:** Copy of relevant invoice and/or delivery document, and
- **Verifier:** Copy of valid certificate.

Criterion 0.4: The economic operator **shall** develop and implement an internal monitoring system to ensure that all information regarding biomass is accurate, reliable and trustworthy.

Indicator 0.4.1: The economic operator **shall** appoint a manager responsible for the implementation of the monitoring system, including all internal monitoring activities.

- **Verifier:** Terms of reference of manager with explicit responsibilities and powers with regards to the sustainability characteristics of the biomass, and
- **Verifier:** Designated manager to be interviewed by independent auditor.

Indicator 0.4.2: The economic operator **shall** identify and establish a list of the activities, sites, information, data and documented procedures that need to be checked during monitoring activities. The system of the economic operator should include written policies, forms and instructions that contain an adequate description of the quality objectives, the organisational structure, the quality control and quality assurance techniques, the monitoring frequency, the quality



records such as inspection reports and the means of achieving the monitoring of the required product sustainability criteria.

- **Verifier:** List of activities and sites, and
- **Verifier:** List of information, data and documented procedures to be checked during document review, visits and/or monitoring audits.

Indicator 0.4.3: When subcontracting production or storage activities to independent third parties, the economic operator **shall** perform audits of these activities at least once a year, and keep records of these audits, to ensure that the integrity of the mass balance system is maintained. All data, information and records related to potentially sustainable biomass should be checked during these activities and a report on the findings should be produced and recorded.

- **Verifier:** Audit plan and/or schedule, or
- **Verifier:** Records of audits with findings and/or recommendations.

Indicator 0.4.4: The designated manager of the economic operator **shall** perform annual reviews of its internal monitoring system to address potential nonconformities and ensure continuous improvement. Relevant procedures and records shall be checked by the manager and a report written to record the annual review. Such annual review report may be sent to top management for review, action and/or approval.

- **Verifier:** Report of internal reviews, or
- **Verifier:** Internal review plan.

Criterion 0.5: The economic operator **shall** ensure that all relevant personal have received adequate information and/or training as needed to implement the mass balance system and ensure the sustainability characteristics of the biomass is maintained. The economic operator can choose its own preferred method to inform and train people but records of information and/or training shall be kept.

Indicator 0.5.1: The economic operator **shall** develop appropriate information and/or training material for all relevant staff members, including subcontractors if any included in the certification unit. Such material should be available for review by the independent auditor.

- **Verifier:** Information and/or training material.

Indicator 0.5.2: The economic operator **shall** develop and implement a training and/or information sessions plan covering all relevant staff members, including subcontractors if any included in the certification unit.

- **Verifier:** Training and/or information sessions plan, or
- **Verifier:** Interviews with staff members and suppliers, or
- **Verifier:** Evidence of implementation, or



- **Verifier:** List of information and/or training session with date and location, or
- **Verifier:** List of participants for each information and/or training session.

Criterion 0.6: The economic operator **shall** have and maintain up to date appropriate registries and records covering all applicable requirements.

Indicator 0.6.1: The economic operator **shall** identify and make a list of all documents, information and data that are relevant to demonstrate conformity with the requirements of the European Directive 2009/28/EC. The system should contain written policies, procedures and instructions.

- **Verifier:** List of all relevant documents, with information and data, including country of origin, sustainability status throughout the supply chain with indication of voluntary schemes used to demonstrate conformity with the European Directive.

Indicator 0.6.2: The economic operator **shall** keep records of all documents, information and data that have been identified and listed as relevant to demonstrate conformity with the requirements of the European Directive 2009/28/EC.

- **Verifier:** Procedure related to record keeping, maintenance and/or document control, and
- **Verifier:** Records.

Indicator 0.6.3: The economic operator **shall** keep all records for the period of validity of the verification certificate; i.e. five (5) years.

- **Verifier:** Procedure related to record keeping, maintenance and/or document control, and
- **Verifier:** Records.

Criterion 0.7: Biomass and/or biofuels from unknown or unclear origin **shall not** be considered as sustainable.

Indicator 0.7.1: The economic operator **shall** have a procedure to verify that a supplier is in conformity with the requirements of the European Directive 2009/28/EC through a valid certificate of conformity before classifying as sustainable the biomass and/or biofuels originating from this supplier.

- **Verifier:** Procedure and
- **Verifier:** Registry of valid certificates of conformity or access to the central scheme certificate database.

Indicator 0.7.2 (Major Indicator): The economic operator **shall** have developed and implemented a procedure to ensure that in case of doubt regarding the origin of the biomass and/or biofuels, the precautionary principle is applied and the biomass is not registered as sustainable.



- **Verifier:** Written procedure, and
- **Verifier:** Evidence that the procedure has been communicated to all relevant staff, and
- **Verifier:** Interview with relevant staff to ensure awareness and systematic implementation of the procedure.

Principle 1 : Mass Balance System for biofuels production

*The economic operator **shall** implement a mass balance system in conformity with the EU Directive Article 18, sections 1.a, 1.b and 1.c.*

Criterion 1.1: The economic operator **shall** have developed and documented a control system for the biomass and/or biofuels received based on a mass balance system at the level of containers, processing logistical facilities or sites (defined as a geographical location with precise boundaries within which products can be mixed) to ensure that “sustainability characteristics” remain assigned to “consignments”, in conformity with the European Directive 2009/28/EC.

Indicator 1.1.1 (Critical Indicator): The economic operator **shall** have developed and documented a mass balance system for the potentially sustainable biomass and/or biofuels it receives. Such mass balance can be consolidated centrally as long as relevant information (i.e. the type of feedstock, year of harvest, volume, country of origin, sustainability characteristics and GHG characteristics if required) is available for each processing or logistical facility, or site.

- **Verifier:** Set of documented procedures for mass balance system, or
- **Verifier:** Set of work instructions.

Indicator 1.1.2: The economic operator **shall** have identified, characterised and classified the different types of biomass and/or biofuels it receives into different categories making reference to the type of feedstock, year of harvest, volume, country of origin, sustainability characteristics and GHG characteristics if required.

- **Verifier:** List with categories of biomass defined by the type of feedstock, year of harvest, country of origin, sustainability characteristics and GHG characteristics if required.

Indicator 1.1.3: The economic operator **shall** record all information, data and/or documents received that were used to classify the biomass and/or biofuels as sustainable. All records shall be kept for a period of five (5) years. These records shall include at least the delivery documents and evidence of the monitoring process.

- **Verifier:** Records kept for a period of five (5) years.



Indicator 1.1.4: The economic operator **shall** ensure that all relevant personal have received adequate information and/or training as needed to implement the procedures.

- **Verifier:** Training and/or information records.

Criterion 1.2: The economic operator **shall** develop a mass balance system that ensures that the sustainability characteristics and origin of biomass and/or biofuels can be demonstrated.

Indicator 1.2.1 (Major Indicator): The economic operator **shall** develop documented mass balance procedures for biomass and/or biofuels, from the purchase or delivery of the biomass and/or biofuels, to the transfer of ownership. These procedures shall cover each processing or logistical facility, or site where potentially sustainable biomass and/or biofuels is received. Mass balance procedures should be based on records of the type of feedstock, year of harvest, volume, country of origin, sustainability characteristics and GHG characteristics if required, conversion factors if any processing takes place, records of movements between logistical sites if any and records of outputs.

- **Verifier:** Mass balance procedures.

Indicator 1.2.2: The economic operator **shall** ensure that all relevant documentation, data and/or information related to the reception of the biomass and/or biofuels is accurate, reliable and trustworthy, and in conformity with the requirements defined in this document. The relevant information should be available in the system and spot checks should be performed and recorded. The economic operator shall also ensure that relevant information regarding conformity with the sustainability criteria are available to cover the entire biofuels chain.

- **Verifier:** Mass balance procedure specifying that the following information needs to be checked at reception; type, volume, country of origin of the feedstock, sustainability and GHG characteristics, and,
- **Verifier:** Work instruction, or
- **Verifier:** Records, or
- **Verifier:** Interviews with staff members.

Indicator 1.2.3 (Major Indicator): The economic operator **shall** record in a credit account the origin of the feedstock (including from NUTS 2 region within the EU whenever relevant), type of raw material, biomass feedstock, , year of harvest, intermediate products used in the production of biofuels and/or the biofuels, volume, sustainability, GHG characteristics whenever relevant, for all the potentially sustainable biomass and/or biofuels received. This activity should only be performed by the most competent staff person(s), to maintain a high level of control and avoid wrong sustainability claims, at the level of each logistical site or centrally.

- **Verifier:** Records.



Indicator 1.2.4 (Critical Indicator): The economic operator **shall** ensure that only the biomass and/or biofuels for which conformity with the sustainability requirements can be demonstrated is registered as sustainable in the credit account. The following information needs to be registered and checked during internal monitoring and verification activities and by the independent auditor; the type of feedstock, year of harvest, volume, country of origin, sustainability characteristics and GHG characteristics if required.

- **Verifier:** Valid certificate, and
- **Verifier:** Invoice or other similar document, and
- **Verifier:** Credit account, and
- **Verifier:** Interview with staff members.

Indicator 1.2.5: The economic operator **shall** establish a credit account that is based on the origin of the feedstock (including from NUTS 2 region within the EU whenever relevant), type of raw material, biomass feedstock, intermediate products used in the production of biofuels and/or the biofuels, volume, sustainability, GHG characteristics whenever relevant. Other relevant characteristics must also be taken into account such as wastes, residues, non-food cellulosic material and/or ligno-cellulosic material, (according to annex V & article 21.2 of European Directive 2009/28/EC), the unit used, an appropriate conversion factor (*see indicator 1.2.8*), and the credit claim period (*see indicator 1.2.6*).

- **Verifier:** Credit account, and
- **Verifier:** Procedure for credit account, and
- **Verifier:** Records.

Indicator 1.2.6 Whenever biofuels have been produced from wastes, residues, non-food cellulosic material and/or ligno-cellulosic material, according to article 21.2 of European Directive 2009/28/EC, the economic operator **shall** keep record of the type of the biomass used for the production of the biofuels. For biofuels produced from wastes and from residues, other than agricultural, aquaculture, fisheries and forestry residues, only the sustainability criterion relating to GHG savings **shall** apply.

- **Verifier:** Credit account, and
- **Verifier:** Procedure for credit account, and
- **Verifier:** Records.

Indicator 1.2.7 (Major Indicator): The credit claim period for economic operators throughout the biofuels production chain **shall not** exceed 12 months after the end of the previous 12 month-harvest campaign of the biomass. The maximum credit claim period is set at 12 months maximum after the end of the 12 month-harvest campaign for the whole biofuels production chain to allow the management of stocks, storage and production of biofuels throughout the year based on the sustainable biomass, by-products or biofuels from the previous harvest season.



- **Verifier:** Credit account, or
- **Verifier:** Procedure for credit account, and
- **Verifier:** Records.

Indicator 1.2.8: The economic operator **shall** define for the production process and/or each activity and the different raw materials, an adequate average conversion factor.

- **Verifier:** Calculated conversion factor, and
- **Verifier:** Evidence of the relevant data and calculation to determine the conversion factor(s).

Indicator 1.2.9: The economic operator **shall** ensure that the appropriate conversion factor(s) is used to maintain the credit account. Different conversion factors should be calculated and used for different parts of the production process. These conversion factors should be checked for relevance by the independent auditor

- **Verifier:** Calculated conversion factor, and
- **Verifier:** Credit account, and
- **Verifier:** Records.

Indicator 1.2.10 (Critical Indicator): The economic operator **shall** ensure that no credit is claimed before an independent verification audit has been performed and a certificate has been awarded by an approved independent Verification Body. Furthermore, an equivalent quantity of sustainable biomass and/or biofuels shall have been purchased, received and/or registered in the credit account. To do this the economic operator shall establish a monthly monitoring system to ensure that the balance of the credit account remains positive. A deficit in sustainable biomass and/or biofuels (i.e. that at any point in time more sustainable material has been withdrawn than has been added) shall not occur.

- **Verifier:** Credit account, and
- **Verifier:** End of month balance.

Indicator 1.2.11: The economic operator **shall** maintain its credit account up to date for all the biomass and/or biofuels under its ownership, even if it remains under the physical control of a subcontractor; i.e. storage, production. This should be periodically checked as part of the monitoring and verification activities implemented by the economic operator. Records should be kept and made available to the independent auditor.

- **Verifier:** Credit account, or
- **Verifier:** End of month balance, or
- **Verifier:** Records.

Indicator 1.2.12: The economic operator **shall** ensure that wastes, residues, non-food cellulosic material and/or ligno-cellulosic material, according to article 21.2 of European Directive 2009/28/EC, and biofuels produced from



these materials, shall be clearly indicated in the credit account, so that the credit attached can be traced back and can be considered twice for the purpose of demonstrating compliance with national renewable energy obligations, whenever relevant.

- **Verifier:** Credit account, and
- **Verifier:** Records.

Indicator 1.2.13: The economic operator **shall** ensure that the transfer of credit across national borders, or trading of virtual credit between different legal entities **is not authorized** in its procedures for credit account and does not take place.

- **Verifier:** Credit account, or
- **Verifier:** Records.

Indicator 1.2.14: The economic operator **shall** develop and implement a documented procedure to ensure that the correct credit amount is deducted from the credit account when biomass and/or biofuel is sold as sustainable and a sustainability claim is made. A deficit in sustainable biomass and/or biofuels (i.e. that at any point in time more sustainable material has been withdrawn than has been added) shall not occur. This activity should only be performed by the most competent staff person(s), to maintain a high level of control and avoid wrong sustainability claims, at the level of each logistical site or centrally.

- **Verifier:** Procedure, and
- **Verifier:** Credit account, and
- **Verifier:** Records, and
- **Verifier:** Interview with staff members.

Indicator 1.2.15: The economic operator **shall** ensure that the credit account is up to date, accessible to all staff members that need it, but also secured against fraud by staff members as well as third parties.

- **Verifier:** Procedure implemented to ensure that the credit system is secured,, and
- **Verifier:** Credit account, and
- **Verifier:** Records, and
- **Verifier:** Interview with staff members.

Indicator 1.2.16: The economic operator **shall** develop a coding system specific for the products sold as sustainable in its accounting system in order to ensure that it can link the quantities sold as sustainable on the sales documents.

- **Verifier:** Linked sales documents, product codes or product identification.

Criterion 1.3: The economic operator **shall** ensure that sustainability claims are only made after a verification audit has been performed and a certificate has been



awarded by an approved independent Verification Body. All sustainability claims regarding the biomass and/or biofuels sold shall be accurate, reliable and trustworthy in conformity with the European Directives 2009/28/EC.

Indicator 1.3.1 (Major Indicator): The economic operator **shall** ensure that the following information is included on its invoices, delivery notes or certificates appended to sales documents when biomass and/or biofuels is sold as sustainable in conformity with the European Directives: origin of the feedstock (country of origin if relevant), supplier, type, volume, sustainability, GHG (whenever relevant), specific reference to the verification scheme applied, and any other relevant characteristic.

- **Verifier:** Sales documents, and
- **Verifier:** Records.

Indicator 1.3.2: The economic operator **shall** ensure and have records to demonstrate the country of origin of the feedstock and that the sustainability criteria have been fulfilled throughout the biofuels chain.

- **Verifier:** A certificate of conformity issued under an approved voluntary certification scheme by an independent verification body or other similar documented evidence.

Indicator 1.3.3: The economic operator **shall** only make accurate, reliable and trustworthy sustainability claim(s) on sales documents, promotional documents and other communication for biomass and/or biofuels advertised and/or sold as sustainable in conformity with the European Directives 2009/28/EC. Sustainability claims shall only be made after a verification audit has been performed and a certificate has been awarded by an approved independent Verification Body and if the economic operator can demonstrate that the sustainability criteria have been fulfilled throughout the fuel chain.

- **Verifier:** Sales documents, or
- **Verifier:** Promotional documents, or
- **Verifier:** Other communication.

Principle 2: Greenhouse gas emission savings

*The economic operator **shall** ensure that the greenhouse gas emission saving from the use of potentially sustainable biofuels is at least 35% in conformity with the EU Directive Article 17, sections 2.*

Criterion 2.1: The economic operators **shall** apply the prescriptions of the European Directive 2009/28/EC regarding greenhouse gas emission saving in order to ensure at least 35% GHG emission savings.

Indicator 2.1.1 (Major Indicator): When a processing installation used in the biofuels production chain was in operation on or before the 23 January 2008, a minimum of 35% GHG saving needs to be demonstrated only for biofuels



produced after 1 April 2013 (The term “*installation*” includes any processing installation used in the production process). After this date, claims of compliance with the sustainability requirements can only be made when it can be demonstrated that the minimum GHG savings threshold of 35% has been met.

- **Verifier:** Official production document prior to 23 January 2008, or.
- **Verifier:** Other evidence of operation prior to 23 January 2008, or
- **Verifier:** Other official document proving the readiness to produce prior to 23 January 2008.
- **Verifier:** No sustainability claim on or after 01 April 2013 can be made based on the fact that a production plant within the biofuels supply chain was in operation on the 23 January 2008, and
- **Verifier:** After 01 April 2013, all sustainability claims are based on appropriate default values or calculated values.

Indicator 2.1.2: Whenever GHG values are used, the economic operator **shall** not calculate a mean value of GHG emission for biomass and/or biofuels with different GHG characteristics.

- **Verifier:** Records.

Criterion 2.2: Whenever required to provide GHG emission information, the economic operator **shall** use the appropriate value in conformity with the European Directive, following one of the procedures described in the indicators below.

Indicator 2.2.1: Whenever appropriate, the economic operator **shall** use the default value provided in part A or B of Annex V if the data is laid down for its pathway in part A or B of annex V, and if the annualised emissions from carbon stock changes caused by land-use change (also called “ e_l ”) are equal to or less than zero.

- **Verifier:** Evidence that annualised emissions from carbon stock changes caused by land use change (also called “ e_l ”) are equal to or less than zero¹, and
Verifier: GHG data for the type of biofuel in conformity with the European Directive Annex V point A or B.

Indicator 2.2.2: Whenever appropriate, the economic operator **shall** use the default value provided in part A or D of Annex V if their raw material has been produced in NUTS2 areas included in the list validated under article 19, point 2 of the European Directive, or if their raw material is imported from outside the Community, or if their raw material consists in waste or residues, other than agricultural, aquaculture, fisheries or forestry residues according to article 17.1 of the European Directive 2009/28/EC. Please note that default

¹ The detailed guidelines for the calculation of land carbon stocks are described in the communications of the European Commission.



values also exist for different raw materials, such as waste vegetable or animal oil process. Furthermore, default values for some raw material may also depend on the process type (i.e. wheat ethanol and palm oil biodiesel).

- **Verifier:** GHG type of value attached to the biomass, and
- **Verifier:** Biomass origin, and
- **Verifier:** Type of biomass used to produce the biofuel.

Indicator 2.2.3: Whenever appropriate, the economic operator **shall** use a value calculated as the sum of the factors of the formula described in part C of Annex V, where any of the factors used may be the disaggregated default value provided in part D or E of Annex V. The calculation methodology used shall be the 2BSvs methodology on the calculation of greenhouse gas emissions approved or recognized by the European Commission ((published on the European Commission transparency platform and in accordance to EC Decision 2010/335/EU of June 2010). No other methodology shall be used to calculate the real GHG emissions generated by the production of the biomass

- **Verifier:** For the calculated values used in the formula, record of all the data used for the calculation and sources, and
- **Verifier :** Record of all calculations made to obtain the results.

Indicator 2.2.4: Whenever appropriate, the economic operator **shall** consider wastes and residues (please refer to 2BS official list of wastes and residues), to have zero life cycle greenhouse gas emissions up to the process of collection.

- **Verifier:** Credit account, and
- **Verifier:** GHG records.

Criterion 2.3: The economic operator **shall** provide transparent and reliable information regarding the nature and the origin of the biofuels in addition to the GHG information associated to the biofuel.

Indicator 2.3.1: The economic operator **shall** keep record of country of origin of the feedstock and nature of the biomass used for the production of the biofuel

- **Verifier:** Credit account.

Indicator 2.3.2: The economic operator **shall** provide the GHG information associated to the biofuels. If the land-use change emissions are equal to or less than zero, he may use the default value of the European Directive Annex V point A or B (Please note that to use a default value the biomass shall not have been produced from land with land use change since January 2008, such as the conversion of permanent grassland). When a default value cannot be used, the economic operator shall calculate the actual value according to the Annex V point C, with the possibility to use disaggregated default values from Annex V point D and E (default values for cultivation stage from part D, annex V,

included) using the 2BSvs calculation methodology approved or recognised by the European Commission.

- **Verifier:** GHG information, and
- **Verifier:** Evidence that the GHG information corresponds to the appropriate default value of the Directive, or
- **Verifier:** Data used together with the calculation methodology.

Criterion 2.4: Except when a processing installation used in the production chain was in operation on the 23 January 2008 at the latest (see indicator 2.1.1), the last economic operator certified in the biofuels production chain (before the biofuels' storage area under custom custody) shall ensure that GHG savings over the whole biofuels production and supply chain shall be at least 35% and that sustainability claims are only made for biofuels that meet this 35% target.

Indicator 2.4.1 (Major Indicator): The economic operator **shall** keep record of GHG calculations or default values used throughout the whole biofuels supply chain to demonstrate at least 35% GHG savings.

- **Verifier:** GHG data/information for each one of the relevant links within the supply chain, and
- **Verifier:** GHG records for each one of the relevant links of the supply chain.
- **Verifier:** When calculated values are used, records of the methodology and data used shall be available for each one of the entities within the supply chain.
- **Verifier:** When default values are used, the economic operator shall have access to relevant records to justify the use of a specific default value.

Indicator 2.4.2: The economic operator **shall** ensure that sustainability claims are only made for biofuels that meet the 35% GHG savings target throughout the whole biofuels supply chain.

- **Verifier:** GHG data/information for each one of the relevant links within the supply chain, and
- **Verifier:** Records of all the claims made with clear reference to the 35% GHG savings target.