

Green Gold Label Instruction B.0 FIT/FIP Module

For compliance with FIT/FIP Regulations
for the Japanese market



Instruction B.0

FIT/FIP Module

Version 1-10

Valid from 2 March 2026 (Adoption date)

Copyright Green Gold Label Foundation 2026
greengoldlabel.com

Document navigation

This Instruction is part of the GGL Module for FIT/FIP. It concerns the central Module and where specific clauses in this document deviate from the Overall documents, the instructions in this document prevail.

The Overall documents comprise the GGL Setup and Governance, GGL Standards and GGL Operating documents. Additionally, the GGL scheme offers Instructions and Guidances for specific regulatory frameworks (RED, FIT/FIP, SDE+/++), which can supersede clauses in the Overall documents. This applies only when explicitly stated in the relevant Instructions and Guidances.

Refer to the **GGL Document Structure** (as part of the GGL Setup and Governance documents) for more detailed information on navigating and interpreting GGL documentation.

GGL Setup and Governance <ul style="list-style-type: none"> Articles of association GGL foundation GGL Document structure GGL Regulation GGL Scope definitions GGL CB agreements GGL Partner Code of Conduct GGL Operating Agreement 	GGL Standards <ul style="list-style-type: none"> GGLS1 – Chain of custody criteria GGLS2 – Agricultural source criteria GGLS4 – Transaction and Product Certificate GGLS5 – Forest management criteria GGLS6 – Power company criteria 	RED – Instructions <ul style="list-style-type: none"> Instruction A.0 – RED Module Instruction A.1 – RED Reporting duties Instruction A.2 – RED Internal monitoring Instruction A.3 – RED Auditor requirements Instruction A.4 – RED GHG emissions Instruction A.5 – RED Additional Agricultural source and Forest management criteria Instruction A.6 – RED Supplier verification programme for biogenic residues and waste 	RED – Guidances <ul style="list-style-type: none"> Guidance A.0.i – RED Raw materials statement template Guidance A.0.ii – RED Transaction certificate template Guidance A.0.iii – RED Audit template Guidance A.4.iv – RED GHG default values Guidance A.5.v – RED Level A Risk assessments Guidance A.6.vi – RED Supplier verification checklist for biogenic residues and waste 	GHG Guidance <ul style="list-style-type: none"> Guidance ABC.1 – GHG calculator
	GGL Operating documents <ul style="list-style-type: none"> GGL Participant fees GGL Logo and tradename use GGL List of prohibited materials 	FIT / FIP – Instructions <ul style="list-style-type: none"> Instruction B.0 – FIT/FIP Module Instruction B.1 – FIT/FIP Endorsed schemes Instruction B.2 – FIT/FIP GHG emissions Instruction B.3 – FIT/FIP Additional power company criteria 	FIT / FIP – Guidances <ul style="list-style-type: none"> Guidance B.0.i – FIT/FIP Raw materials statement template Guidance B.0.ii – FIT/FIP Transaction certificate template Guidance B.0.iii – FIT/FIP Audit template Guidance B.0.iv – FIT/FIP Supplier verification checklist for biogenic residues and waste Guidance B.2.v – FIT/FIP LCGHG default values 	
	SDE++ – Instructions <ul style="list-style-type: none"> Instruction C.1 – SDE++ Endorsed schemes Instruction C.2 – SDE++ GHG emissions 	SDE++ – Guidances <ul style="list-style-type: none"> Guidance C.0.i – SDE++ Raw materials statement template Guidance C.0.ii – SDE++ Transaction certificate template 		



Table of contents

Document navigation.....	3
Table of contents	4
Changes and transitioning	5
Glossary.....	7
A. Introduction & scope.....	11
B. FIT/FIP - Agricultural feedstock in GGL Categories 4 or 5.....	13
C. FIT/FIP - Woody feedstock in GGL Categories 1, 2, 3 or 5.....	14
D. Applicability and scope.....	16
E. Supplier verification program for FIT/FIP certification.....	19
F. Principles for supplier verification.....	20
Principle 1. GGL biomass under FIT/FIP shall adhere to specific requirements and planning.	20
Principle 2. All materials supplied to First Collectors are subjected to the Supplier verification programme of these First Collectors.	20
Principle 3. All raw material in GGL Category 5 originating from suppliers and/or producers shall be traceable to its Point of origin	24
Principle 4. No raw material originates from “source land” that was deforested after 31 December 2020.....	24
Principle 5. The producer does not deliberately produce any waste or residues, nor does it expand the operation to produce more waste or residues.	25
Principle 6. A management system is in place for all operations at the site.	25
Principle 7. Relevant international, national, regional and local laws and regulations are complied with in all operations and transactions.....	26
Principle 8. Labour rights of workers and staff are safeguarded.....	26
Principle 9. The health and Safety of workers and staff are protected.	26
Principle 10. Transparency and a grievance mechanism are established.	27
Principle 11. Relevant documents, yearly records and summaries are stored.....	27
Appendix A. Applicability of GGL Standards for FIT/ FIP	28

Changes and transitioning

This section lists the major changes in this version v1-10 from version **GGL-1d**.
Instruction for supplying Japanese market FIT FIP v1-8 (March 2024).

No.	Change type	Section reference	Details of change
1	Content	Glossary	Clarified the difference between GGL-Certified and GGL-Controlled biomass
2	Content	A.6	Updated illustrations for GGL Categories' allocation to Japanese FIT/FIP categories
3	Content	General	Removed exception for Traders in Eligible fuels as GGL biomass: these have to be certified at all times.
4	Content	D.6	Included sampling size and frequency requirements for CB's auditing of Supplier verification programmes
5	Content	D.6	Clarified the difference between GGL Participants (e.g., Biomass Producers and First Collectors) vs suppliers and/or producers of raw materials
6	Content	Principle 2.04	Clarified how the supplier verification programme by First Collectors differs from self-declarations by suppliers from certification audits
7	Content	Principle 4	New requirement for "source land" of suppliers and/or producers: raw material shall not be sourced from land deforested after 31 December 2020
8	Content	Principle 5	Refined requirement that biogenic residue or waste cannot be the driver of production
9	Content	Principle 8	Detailed ILO-related rights at work requirements for suppliers and/or producers
10	Text feature	Document navigation	Included document navigation
11	Text feature	Changes and transitioning	Included the changelog and the transitioning procedure between the previous and the current version
12	Text feature	Glossary	Included glossary and harmonised wording
13	Formatting	All	Changed and edited formatting, text and wording for clarity and readability
14	Formatting	All	Converted layout to new templates for GGL Documents



In transitioning to this current version of this document from its previous version, the following applies to Certification Bodies, Participants and Certificates:

Publication date	7 November 2025
Adoption date	2 March 2026
Effective date	1 March 2027
End of Transition period	1 March 2028

Glossary

Term	Definition
Adoption date	New (versions of) GGL documents include an Adoption date in the transitioning section. This date indicates when certification against the GGL Scheme and the specific document becomes possible. Certifications based on previous versions will remain valid until the Effective date of the new document.
Audit	Formal examination and inspection by a GGL-approved Certification Body of an organization's processes and activities to verify compliance in accordance with ISO-19011. In contrast, an audit differs from an internal audit.
Audit report	The audit report lists all results of the audit process in a written form and shall include a summary report as well as all the observations made by the auditor during the audit process.
Batch	A quantity or consignment of biomass originating at one Point of origin and covered by one Raw Material Statement.
Biomass producer	The first participant in the GGL supply chain for woody and agricultural biomass (covering GGL categories 1, 2, 3, and 4) is known as a Biomass Producer. This entity produces raw materials through harvesting or farming activities and is responsible for delivering Raw Materials Statements. Biomass Producers are similar to First Collectors in that they represent the initial participants in the GGL supply chain.
Biomass	Biomass refers to the biodegradable portion of products, waste, and residues derived from biological sources in agriculture, which includes both plant and animal materials. It also encompasses materials from forestry and related industries, such as fisheries and aquaculture. Additionally, biomass includes the biodegradable fraction of waste, including industrial and municipal waste of biological origin.
Certification Body / CB	An independent third party evaluates and certifies the certification process. Certification bodies approved by GGL for one or more GGL scopes are listed on the GGL website.
Credit system / volume credit system	The volume credit system is a method for tracking the flow of sustainable materials through a supply chain, using a chain of custody approach along with a mass balance system. This system ensures accurate accounting of sustainable materials as they move within the supply chain and allows for the proper allocation of these materials to finished goods based on verifiable bookkeeping. However, GGL does not permit the application of the volume credit system for all types of biomass or for all GGL Scopes. The specific system implemented by GGL to facilitate mass balance management is outlined in GGLS1 - Chain of custody criteria .
Direct origination / [...] originate directly	Biomass in GGL Categories 1, 2, 3, and 4 originates directly from harvesting and farming activities. This means that this biomass is produced at the same time and location as the primary products, such as wood or agricultural goods. In contrast, biomass in GGL Category 5 comes from biogenic residues or waste that are generated when primary products, co- or by-products are separated.



Term	Definition
Effective date	New (versions of) GGL documents specify an Effective Date. This is the date after which certification can only be granted according to the GGL Scheme and the specific document that has the Effective Date. Certification based on previous versions of the document is no longer considered valid.
Eligible fuel	Any biomass fuel that listed in the relevant GGL Module and eligible for GGL certification.
Environmental Monitoring document	A detailed policy issued by the producer that outlines how various aspects of environmental monitoring, including site selection, testing and analyses schedules, data management, and methods, will be evaluated.
First Collector	The first participant in the GGL supply chain for residues and wastes (GGL category 5) is known as the First Collector. This entity collects raw materials from suppliers who provide Raw Materials Statements. First Collectors are similar to Biomass Producers in that they are the initial GGL Participants within the GGL supply chain.
FMU / Forest Management Unit	A well-defined land area that is predominantly (>50%) forested, incorporating planned human intervention within a forest ecosystem to meet specific goals and objectives.
GGL Biomass	Biomass certified with a GGL-Certified or GGL-Controlled claim.
GGL Categories	Biomass is classified into one of five categories recognized by GGL: 1) Woody biomass from large FMUs (> 500 hectares) 2) Woody biomass from small FMUs (< 500 hectares) 3) Residues from natural site and landscape management 4) Agricultural biomass 5) Biogenic residues and waste
GGL Module	These Instructions and Guidance documents outline how GGL has been approved and recognized as a Certification scheme under various legal and voluntary frameworks (e.g., Renewable Energy Directive (RED) in Europe and FIT/FIP in Japan).
GGL Scope	Each GGL Participant and each Certification Body (CB) is restricted to performing activities under the GGL Scheme based on the specific GGL Scope for which they are recognized. GGL Biomass has a specific GGL Scope. The GGL Scope is a combination of (a) applicable regulatory GGL Modules and (b) the GGL Categories of biomass. Detailed definitions of GGL Scopes can be found in the GGL Scope definitions document.
GGL-Certified	Biomass that has been certified against all applicable GGL criteria, or against a certification scheme other than GGL, which has been endorsed and approved by the relevant authorities (e.g., EU for RED, METI for FIT/FIP) and holds equivalent status. GGL-Certified biomass meets all criteria for sustainability and legality.

Term	Definition
GGL-Controlled	Woody biomass that has been certified against some of the applicable GGL criteria, or against a certification scheme other than GGL that has been endorsed and approved by the relevant authorities (e.g., the EU for RED or METI for FIT/FIP) holding equivalent status. GGL-Controlled biomass can only come from GGL categories 1, 2, or 3 for woody biomass and must meet specific key sustainability criteria. Therefore, the sustainability of GGL-Controlled woody biomass is certified to a lesser extent than that of GGL-Certified woody biomass.
GHG (Greenhouse Gas) Emissions	Greenhouse gases are a group of gases that contribute to global warming and climate change. According to the Kyoto Protocol, they include seven gases: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulphur hexafluoride, and nitrogen trifluoride. Converting them to carbon dioxide equivalents (CO ₂ eq) makes it possible to compare them and to determine their individual and total contributions to global warming.
Group Auditing	Auditing a group of participants as if they were one organization is allowed by GGL only for groups of Points of origin, with strict requirements specified in the GGL Regulation .
Industrial grade roundwood	Industrial grade roundwood refers to saw logs, veneer logs, and both round or split pulpwood. It also includes any other roundwood that is suitable for industrial purposes. However, this excludes roundwood that is deemed unsuitable for industrial use due to specific characteristics such as species, dimensions, straightness, and node density. These exclusions are defined and justified by countries based on relevant forestry and market conditions.
Internal energy use	The energy consumed during the conversion of raw materials into biomass, such as but not limited to through drying or sieving processes.
Land-related evidence	Evidence of compliance with land-related criteria can be provided in various forms including but not limited to, aerial photographs, satellite images, maps, land register entries, databases, and site surveys. This evidence can demonstrate either “positive” or “negative” compliance. For example, compliance with the criterion regarding “primary forest” could be illustrated by: <ul style="list-style-type: none"> - An aerial photograph showing that the land is planted (positive evidence), or - A map displaying all the primary forests in the region, indicating that the land falls outside of them (negative evidence).
Mass balance	Mass balance is a chain-of-custody approach that enables the net amount of sustainable materials to be tracked as they move through a system or supply chain, and ensures an appropriate allocation of these materials to the finished goods, based on auditable bookkeeping.
Participant / GGL Participant	An economic operator that has been certified under the GGL Regulation Section G, or under another certification scheme endorsed and approved by the relevant authorities (e.g., EU for RED or METI for FIT/FIP), holds equivalent status. This includes forest and agricultural biomass producers, waste and residue producers, first gathering points, collectors, suppliers, traders, processing plants, and conversion plants (end-users).



Term	Definition
Point of origin	The location where the raw material directly originates, before its classification as GGL Biomass.
Producer	Producer of raw material at a Point of origin for a First Collector or Biomass Producer, who may or may not be certified as a GGL Participant.
Publication date	New (versions of) GGL documents include their Publication date, which indicates when that version is published. Certification against a new version cannot occur until after its Adoption date.
Raw material	The batch of biomass from a single Point of origin before it is classified as GGL Biomass, for which a single Raw Material Statement is verified and that falls within a single GGL Category of biomass.
Residue	A substance that is not the primary, co- or by-product of a production process. It is not a primary goal of that process, and the process has not been intentionally adjusted to create it.
RMS / Raw Material Statement	A certified statement describing the batch of raw materials brought into GGL supply chains by a GGL Participant that meets the requirements of GGLS1 - Chain of Custody criteria and applicable GGL Modules.
Site	Site refers to a specific geographical location, including logistical facilities and transmission or distribution infrastructures, characterized by defined boundaries within which products can be mixed.
Source land	Location where the biomass was originally harvested or farmed, which precedes the Point of origin where the biogenic residues or waste arises
Supplier	Supplier of raw material from a Point of origin to a First Collector or Biomass Producer. A supplier may or may not be certified as a GGL Participant.
TC / Transaction certificate	A certified statement of a transaction between GGL Participants that meets requirements of GGLS4 - Transaction and product certificate .
Transition period	The new versions of the GGL documents specify the end of a Transition Period. This is the time until which (re-)certification decisions made before the Effective Date (based on the previous version of the document) remain valid. During the Transition Period, audits conducted by a Certification Body must be based solely on the valid (new) version of the GGL Scheme documents.



A. Introduction & scope

A.1

Certification based on the principles in this standard, with a positive outcome, will result in the entity being accepted as a source of biomass under the GGL scheme requirements for the Japanese market. This document aims to ensure that biomass delivered to the Japanese market complies with the METI (Ministry of Economy, Trade and Industry) FIT (Feed-in Tariff) and FIP (Feed-in Premium) schemes.

A.2

All Overall GGL documents, including standards and supporting documents, are considered normative unless stated otherwise. This **Instruction B.0 – FIT/FIP Module** derogates from specific requirements in the Overall GGL documents in cases where this is mentioned (including, for example, but not limited to, the ISO 17065 requirement for certification bodies from an IAF-recognised accreditation body per the GGL Regulation).

A.3

The GGL Foundation will evaluate all principles and criteria annually and thus reserves the right to make changes as it considers appropriate. The principles and criteria in this instruction document are required for the voluntary certification of all GGL Categories of biomass as defined per **GGLS1 – Chain of custody criteria**.

A.4

Each GGL Category of biomass has specific certification requirements under the GGL Scheme and its GGL Standards. To determine the GGL Category of biomass, **GGLS1 – Chain of custody criteria** provides the allocation criteria in Principle 1.

A.5

[This clause supersedes **GGLS1 – Chain of custody criteria** regarding the Volume credit system.]

The GGL Volume credit system, as defined in **GGLS1 – Chain of custody criteria**, cannot be used under the Japanese FIT/FIP regulation. Biomass shall not be certified against **GGL Module B** and **Instruction B.0 – FIT/FIP Module** when it is part of a volume credit or mass balance system.

A.6

GGL Categories do not directly match the Japanese FIT/FIP biomass categories. Illustration i below illustrates how different types of Woody biomass under Japanese FIT/FIP qualify under GGL-categories of biomass.

GGL biomass categories Note: for Japanese FIT/FIP all documents from GGL FIT/FIP Module are always applicable					
Japan FIT / FIP biomass categories	Category 1 Woody biomass large FMU (>500 ha)	Category 2 Woody biomass small FMU (<500 ha)	Category 3 Residues biomass from natural site and landscape management	Category 4 Agricultural biomass	Category 5 Biogenic wastes and residues
B. Eligible fuels* <ul style="list-style-type: none"> Eligible fuels (PKS, OPT and EFB) Newly eligible fuels since 1-1-23 (incl. Coconut shells, ...) 	X	X	X	GGL-Certified: <ul style="list-style-type: none"> GGLS2 GGLS1 GGLS4 Endorsed schemes-certified biomass	GGL-Certified: <ul style="list-style-type: none"> GGLS1 GGLS4 Endorsed schemes-certified biomass
C. Woody biomass* <ul style="list-style-type: none"> Processing residues (C.1.1) Other harvested trees (C.1.2) Forestry residues (C.1.3) 	GGL-Certified or GGL-Controlled: <ul style="list-style-type: none"> GGLS5 GGLS1 GGLS4 Endorsed schemes-certified biomass	GGL-Certified or GGL-Controlled: <ul style="list-style-type: none"> GGLS5 GGLS1 GGLS4 Endorsed schemes-certified biomass	GGL-Controlled: <ul style="list-style-type: none"> GGLS5 GGLS1 GGLS4 Endorsed schemes-certified biomass	X	GGL-Certified: <ul style="list-style-type: none"> GGLS1 GGLS4 Endorsed schemes-certified biomass

* Detailed in **Instruction B.0 – FIT/FIP Module** below in Sections B and C
 Illustration i – Matching Japanese biomass categories to GGL Categories



B. FIT/FIP - Agricultural feedstock in GGL Categories 4 or 5

This section supersedes **GGLS1 – Chain of custody criteria** and **GGLS4 – Agricultural source criteria** to the extent that it restricts the types of biomass that are allowed under FIT/FIP to specific Eligible fuels.

B.1 Eligible fuels for Japanese FIT/FIP are:

- Palm kernel shells (PKS);
- Palm tree trunks; and
- Empty fruit bunches (EFB);

The following sources are newly eligible fuels for Japanese FIT/FIP per 1-1-2023:

- Coconut shell;
- Cashew nut shell;
- Walnut shell;
- Almond shell;
- Pistachio shell;
- Sunflower seed shell;
- Corn straw pellet;
- Bengkuang seeds;
- Sugar cane stem & leaves;
- Peanut shell; and
- Cashew nut shell liquid (CNSL).

Note: In most cases, these eligible fuels are biogenic wastes and residues from GGL Category 5. In specific cases, the eligible fuels are primary agricultural residues from GGL Category 4, which must also meet the principles and requirements of **GGLS2 - Agricultural source criteria**.

B.2 Biomass originating from palm oil plantations can only be included in GGL if it meets the criteria applicable to GGL Category 4 (agricultural residues) or GGL Category 5 (biogenic residues and waste flows) as described in section A above. Any biomass originating from palm oil plantations that is not classified under these categories is not eligible under the GGL scheme.

B.3 Evidence shall be retained that biomass originating from a palm oil plantation has, at the time of sourcing the biomass, a valid palm oil certificate from an Endorsed scheme listed in **Instruction B.1 - FIT/FIP Endorsed schemes**.

B.4 Definitions for each fuel are based on Japanese food statistics, although these types of biomass are inedible by-products.



C. FIT/FIP - Woody feedstock in GGL Categories 1, 2, 3 or 5

This section supersedes **GGLS1 – Chain of custody criteria** and **GGLS5 – Forest management criteria** to the extent that it restricts the types of biomass that are allowed under FIT/FIP to specific types of Woody biomass.

C.1

Woody biomass can be certified under GGL for Japanese FIT/FIP regulations as either Processing residues, Other harvested trees or Forestry residues. These are:

- C.1.1 **Processing residues:** offcuts, sawdust, bark and other residues generated during wood processing. Sawmills or other processing facilities shall offer evidence.
- C.1.2 **Other harvested trees:** Woody biomass generated from felling for the main purpose of energy use. This is woody biomass derived from final felling at an age of less than 20 years (as confirmed by an official felling notification).
- C.1.3 **Forestry residues:** low-quality wood generated from felling for the main purpose of producing wood for material use (including offcuts and branches), thinned wood, etc. In addition, trees damaged by pests and diseases or natural disasters, pruned branches, driftwood from dams, etc., are generated by felling for purposes other than energy use (excluding waste). This is Woody biomass other than Processing residues, Other harvested trees or Waste.

C.2 When woody biomass originates directly from a forest or a Forest Management Unit (FMU), the principles and requirements of **GGLS5 - Forest management criteria** must also be met. The following criteria determine whether the originating lands qualify as a forest or FMU:

- The land spans more than 0.5 hectares with trees higher than 5 metres and a canopy cover of over 10%, or with trees capable of reaching these thresholds in situ; and,
- The land is not located in a predominantly urban area and is not in use as a park or public green space; and,
- The land is not under agricultural use, for the production of products other than wood, for example, in a plantation.

C.3 Only woody biomass that is non-domestically sourced and imported into Japan from abroad is eligible under FIT/FIP when it is GGL-Certified or GGL-Controlled.

C.4 GGL-Certified and GGL-Controlled biomass can include material that is certified under a GGL Endorsed scheme for equivalence to the GGL-Certified or GGL-Controlled claim, respectively, per **Instruction B.1 – FIT/FIP Endorsed schemes**.



- C.5** Certification Bodies shall not grant certification for the use of industrial grade roundwood (see Glossary), stumps and roots to produce energy from biomass in GGL Category 1, GGL Category 2, nor GGL Category 3 unless the input material is allowed as a FIT/FIP Woody biomass in C.1 above.
- C.6** Certification Bodies may grant certification to the following categories:
- C.6.1 Forestry residues meeting the following description: offcuts, tops and branches, thinned trees that do not meet requirements for industrial grade roundwood, trees damaged by pests and diseases or natural disaster (e.g., windblown / forest fire), pruned branches.
- C.6.2 Woody biomass derived from felling plantations specifically managed for the production of energy at an age of less than 20 years. Please note: the principles and criteria from **GGLS5 - Forest management criteria** have to be met simultaneously for biomass to be GGL-Certified or GGL-Controlled.
- C.6.3 Residue products from natural site and landscape management (GGL Category 3) that are (branches, tops, trees) produced in the course of managing urban and rural green spaces and nature areas, other than forests designated for the preservation, restoration or enhancement of specific natural, recreational or aesthetic functions. These also include biomass residues produced during routine maintenance of public green spaces and parks.
- C.6.4 Biogenic residues and waste flows (GGL Category 5) from the agro-food and timber industry can be certified under GGL. Evidence of meeting the criteria and definitions of waste/residues and recycled material under GGL must be available. This biomass should meet the following description when of woody origin: processing residues such as offcuts, sawdust, bark, and other residues generated during the processing of wood in sawmills, pulp/paper mills, furniture and other wood products industries.
- C.7** Any woody biomass that is certified under an Endorsed scheme listed in **Instruction B.1 - FIT/FIP Endorsed schemes** thus qualifies as either GGL-Certified or GGL-Controlled, as the case may be.

D. Applicability and scope

D.1

Additional requirements for certification of GGL Biomass and Participants against this GGL FIT/FIP Module are described in this document. The requirements in this document therefore supplement applicable requirements in the Overall Documents, including **the GGL Regulation** and **GGL Standards**.

Note - for the avoidance of doubt: unless specified differently below, all other GGL standards, including **GGLS2 - Agricultural source criteria**, **GGLS4 - Transaction and Product certificate**, **GGLS5 - Forest management criteria** and **GGLS6 - Power company criteria**, apply as per different GGL Categories for biomass as illustrated below in Illustration ii.

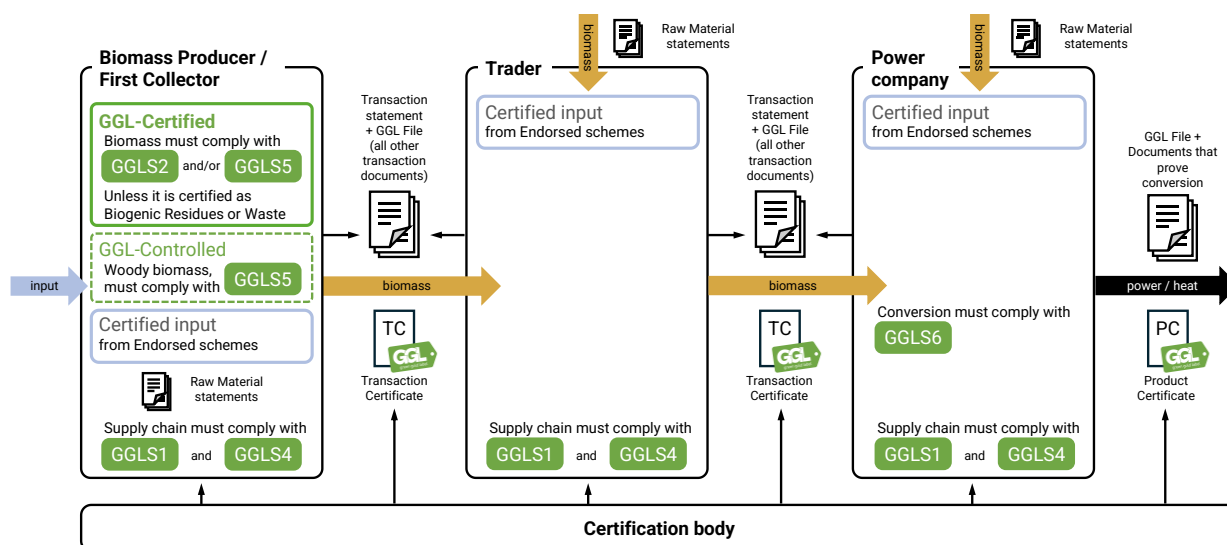


Illustration ii – Applicability of GGL Standards

D.2

GGL-Certified or GGL-Controlled biomass is recognised under FIT/FIP as defined in **GGLS1 - Chain of custody criteria** Principle 5.

D.3

[This clause sets an additional requirement to **GGLS6 – Power company criteria** for Power companies.]

When the proportion of GGL-Certified biomass is less than 70% (i.e., <70%) in a mix of GGL-Certified and GGL-Controlled biomass, End-users (Power companies) shall store information about the share of GGL-Certified biomass in that mix that is being used for power production, for each fiscal year, in addition to any reporting requirement from **GGLS6 – Power company criteria** that may apply.

D.4

The Certification Body shall develop locally adapted verifiers at the level of each principle



or criterium to ensure local conditions are taken into account when conducting FMU/supplier audits for any type of GGL Biomass. Verifiers should be specific and based on national requirements and conditions.

D.5

The Certification Body shall use at least one expert to develop and train local verifiers. The expert shall, at a minimum, have work experience or training/education in the country where audits against this document are conducted and relate to the GGL Scope of the audits for which the verifiers are developed.

D.6

[This clause sets additional requirements for Certification Bodies of First Collectors under FIT/FIP to **GGL Regulation** and **GGLS1 – Chain of custody criteria**].

Audits of First Collectors shall include on-site verification by the Certification Body of their (sub-)suppliers (including collectors or traders of biomass that do not produce it), producers, warehouses, Points of origin (like e.g., Crude Palm Oil / CPO mills) and sites included in the scope of the Supplier verification programme (collectively referred to as “**suppliers and/or producers**” hereafter). Suppliers and/or producers are selected for on-site verification in line with this paragraph.

This verification is included in the scope of the Initial and Annual audit of the First Collector by its Certification Body.

Note - This differentiates First Collectors from a GGL Participant that produces biomass in GGL Categories 1, 2, 3 and 4, which is called a Biomass Producer.

D.6.1 The formula to determine sampling size for suppliers and/or producers in the above-mentioned case is:

$$X = \sqrt{y}, \text{ where:}$$

X = Sample size for on-site audits by a Certification body (rounded to the upper whole number)

y = Size of the group of suppliers and/or producers (e.g. number of CPO mills)

Note – The outcome of the formula is rounded to the upper whole number to determine the number of units to be sampled. For example, in case there is a group of suppliers including 14 CPO mills:

$$X = \sqrt{14} = 3.74 \approx 4$$

Hence, there should be 4 on-site visits conducted by a Certification Body from the supplier group.

D.6.2 The following suppliers, producers and CPO mills are excluded when calculating



the sample size and cannot be selected for an on-site visit by the Certification Body:

- Those certified against an Endorsed scheme listed in **Instruction B.1 - FIT/FIP Endorsed schemes**,
- Those visited and audited by a Certification Body in a preceding 12-month period (meeting the criteria in Principles 2.09 and/or 2.10 below), and
- Those without any active supplies of raw material to the First Collector in the preceding 12-month period.

D.6.3 The audits at the raw material supplier and/or producer level shall be used to confirm compliance of the First Collector's verification programme with all requirements set out in Principle 2 and Principle 3 below.

D.6.4 Non-producing suppliers (e.g., collectors or traders of biomass material, warehouses) within the supplier verification programme under **Instruction B.0 - FIT/FIP Module** shall be sampled separately based on the same formula as above in D.6.1.

D.6.5 The Certification Body shall report the findings and evidence for each indicator and criterion from **Instruction B.0 – FIT/FIP Module** for each supplier, producer and collector in the scope of the assessment in a separate checklist.



E. Supplier verification program for FIT/FIP certification

[This section sets additional requirements for First Collectors of GGL Category 5 biomass to **GGLS1 – Chain of custody criteria.**]

E.1

Principle 1 through Principle 11 listed below define GGL's supplier verification programme. These apply to suppliers and/or producers of Agricultural residues as per section B and Woody biomass as per section C of this **Instruction B.0 - FIT/FIP Module** only when this biomass can be qualified as GGL Category 5.

E.2

The Supplier verification programme applies only when the supplier and/or producer is not independently certified as GGL Participant against this instruction document as Biomass producer or First collector, nor against any of the Endorsed schemes as listed in **Instruction B.1 - FIT/ FIP Endorsed schemes.**

Note – the GGL supplier verification program is designed not give as strong an assurance of sustainability as certification as a GGL Participant. On the other hand, since a GGL Participant is responsible for the program, it is designed to be more robust and reliable than suppliers' and/or producers' self-declarations.

E.3

Assurance on compliance of suppliers and/or producers against the criteria in this document is the responsibility and for the liability of the First Collector. All First Collectors shall comply with the criteria of the current document and be certified under **GGLS1 - Chain of Custody criteria** and **GGLS4 - Transaction and Product certificate**, or against an Endorsed scheme listed in **Instruction B.1 - FIT/FIP Endorsed schemes.**

Note - Within the framework of this document and **Instruction B.1 - FIT/FIP Endorsed schemes**, GGL only endorses certification schemes that are approved by the Japanese Ministry of Economy, Trade and Industry (METI) within FIT/FIP.

E.4

For material to be accepted into a GGL supply chain, the Participant needs to provide a Raw Material Statement to the buyer with all relevant information, including the certificate number, as received upon successful certification against this **Instruction B.0 - FIT/FIP Module.** If the source is certified against any of the Endorsed schemes per **Instruction B.1 - FIT/FIP Endorsed schemes**, an additional verification to this standard is not required.

Note - Appendix A illustrates the applicability of this **Instruction B.0 - FIT/FIP Module** and required documentations for Participants within the GGL supply chain.



F. Principles for supplier verification

This section, with Principles, sets additional requirements for First Collectors' verification of their suppliers and/or producers of GGL Category 5 biomass, in line with **GGLS1 – Chain of custody criteria**.

Principle 1. GGL biomass under FIT/FIP shall adhere to specific requirements and planning.

- 1.01 Collection of data for and calculation of GHG Emissions shall be based on **GGLS1 – Chain of Custody criteria** and follow **Instruction B.2 - FIT/FIP GHG Emissions**, which describes GHG calculation requirements per Japanese FIT/FIP requirements.
- 1.02 First Collectors shall have a plan to increase the annual sourcing of certified biomass. The plan shall be updated annually and, at a minimum, include a 5-year targeted forecast, including an annual increase in certified inputs under an endorsed scheme or under GGL.
- 1.03 All plans shall be approved at the highest management level of the First Collector.

Principle 2. All materials supplied to First Collectors are subjected to the Supplier verification programme of these First Collectors.

- 2.01 First Collectors of biogenic residues and waste in GGL Category 5 that comes from raw material under **Instruction B.0 – FIT/FIP Module** under B (Eligible fuels) or C (Woody material), shall have a Supplier Verification programme in place that meets the requirements of Principle 2 through Principle 11 of this document.
- 2.02 GGL Biomass from GGL Categories 1, 2, 3 or 4 has its own GGL Standards, which set out principles and criteria for legality and sustainability. There is no specific GGL Standard for biomass in GGL Category 5 (Biogenic residues and waste). The raw material inputs for GGL Category 5 can come from a network of suppliers, producers, collectors and traders. Therefore, GGL has designed this Supplier verification programme (Illustration iii).

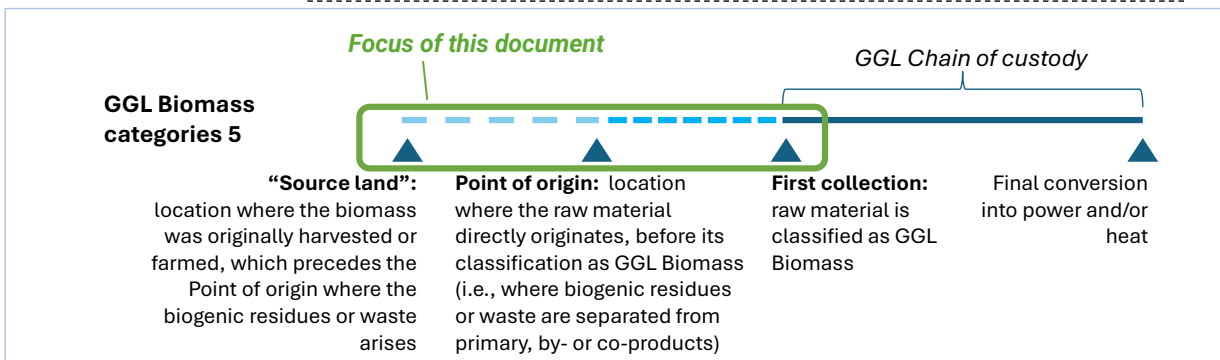
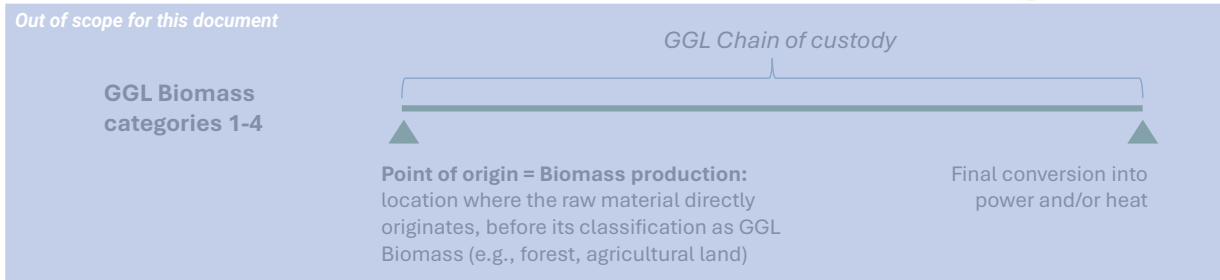


Illustration iii - Focus of GGL supplier verification programme in this document; for “source land” see Principle 4

2.03 Supplier Verification cannot cover more supply chain activities than the initial collection of biogenic residues and waste at origination and their transportation to the First Collector. Further processing activities, e.g., drying, crushing, sieving, pelletising, or others, have to comply with requirements for certification from **GGLS1 – Chain of custody criteria** as well as other applicable criteria from the GGL Scheme.

- 2.04 The GGL Supplier verification programme has been designed to:
- Assign responsibility for the verification process to First Collectors, making this verification programme certifiable since First Collectors are GGL Participants;
 - Allow for stricter verification than what is possible via self-declarations, through which suppliers and producers of raw material, until now, claim sustainability under other certification schemes without a “second pair of eyes” (see Illustration iv); and
 - It is a lighter procedure than certification as a GGL Participant by a Certification Body, thereby reducing the administrative burden for the typically large number of small enterprises.

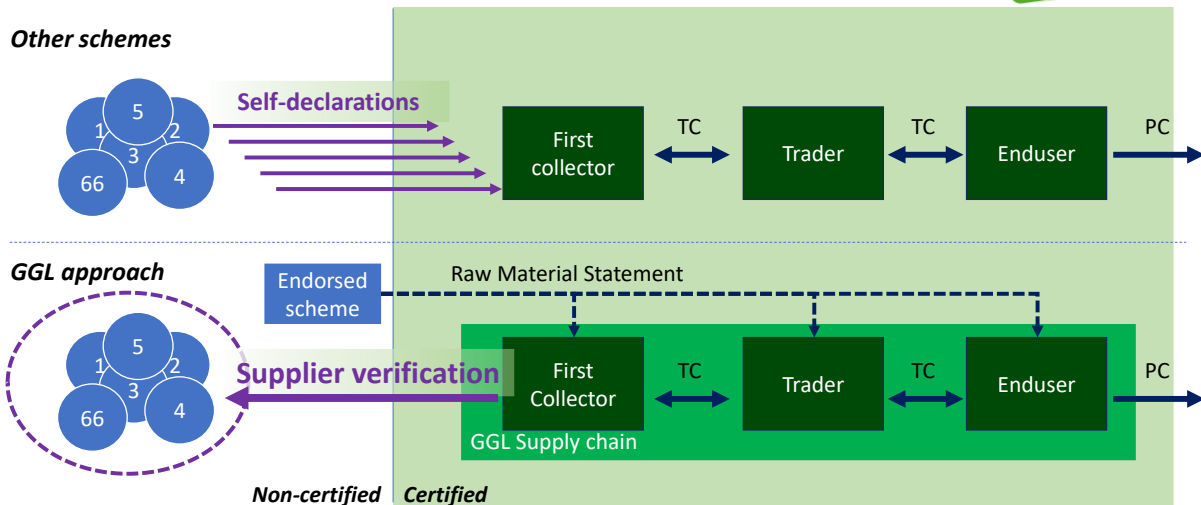


Illustration iv. Self-declarations vs GGL supplier verification programme.

Note – for suppliers and/or producers supplying multiple First Collectors under their respective Supplier verification programmes, they may benefit from efficiencies by being certified as First Collectors independently and becoming a GGL Participant.

2.05 The Raw Material Statement for biomass (see **Guidance B.0.i - FIT/FIP Raw material statement template**) shall be used to verify compliance against the relevant requirements from this instruction. Legal owners and suppliers and/or producers of the material shall sign the Raw Material Statement (or separate statements) to identify the full supply chain as well as to prove and ensure that materials covered by the Raw Material Statement meet the GGL criteria. All relevant evidence shall be requested from suppliers and/or producers to substantiate whether the material meets the applicable GGL criteria.

2.06 Verification against the requirements from this **Instruction B.0 - FIT/FIP Module** by the First Collector shall take place before selling the material as GGL-Certified biomass in GGL Category 5 and must meet the following requirements:

- a) Verification shall cover Principle 3 through Principle 11 below, including underlying criteria, substantiated by a verification report per supplier and/or producer that can be based on **Guidance B.0.iv - FIT/FIP Supplier verification for residues**;
- b) Verification shall be conducted for each supplier and/or producer involved in the supply chain, from the Point of origin through delivery to the First Collector;
- c) Verification shall be reported and documented adequately with findings and evidence for each criterion, to allow its results to be reproduced by third parties;
- d) The scope of verification shall be clearly defined in relation to the applicable deliveries and Points of origin;
- e) The results of the verification by the First Collector shall be registered in a Raw Material Statement for all (batches of) raw materials collected from suppliers and/or producers, declaring compliance with the requirements of this instruction;

- f) Verification results and evidence shall be available to the Certification Body of the First Collector upon request and included in the GGL File;
- g) Verification shall be carried out by qualified and experienced personnel, relevant to the scope of the verification and adapted to the local language, customs and conditions of the country or region where the supplier and/or producer is based. This also applies if any part of the verification against the GGL Standards is outsourced to a third party. Evidence of relevant qualifications and experience by either the Participants' personnel or a sub-contractor shall be documented and be available upon request;
- h) The First Collector shall consult relevant stakeholders (e.g., third-party subcontractors, complainants) within a sufficient time before the verification takes place;
- i) Special care shall be taken to verify the material accounting records of the supplier and/or producer, to ensure that input and output volumes match and that all biomass truly originates from the indicated supplier and/or producer and truly identifies as biogenic residue or waste. This assessment shall be included in the report; and,
- j) Identified non-conformities, risk mitigation and corrective actions resulting from the verifications shall be clearly recorded and documented.

Note - For example, suppliers and/or producers might receive the input material from a Point of Origin (e.g. sawmill) and process the biomass into primary, co- or by-products as well as residues traded as GGL-Certified. For example:

- A collection facility could be First Collector for sawdust as woody residues in GGL Category 5 from sawmills as its suppliers and/or producers.
- A CPO (crude palm oil) mill could be the First Collector for their self-supplied PKS in GGL Category 5, in which case their own CPO mill should be part of the supplier verification programme, like all other suppliers.

- 2.07 Verification against the requirements set out in this instruction document shall be repeated every 12 months by the First Collector for each supplier and/or producer upon continued or repeated deliveries.
- 2.08 Any non-conformity or well-founded complaint/allegation regarding the supplier or any part of the supply chain shall be investigated within 2 months of identifying the non-conformity or receiving the complaint/allegation. The Certification Body of the First Collector shall be informed within this deadline.
- 2.09 Suppliers and/or producers that supply material certified under Endorsed certification schemes per **Instruction B.1 - FIT/FIP Endorsed schemes** with corresponding evidence are excluded from the supplier verification programme. Such material can enter GGL supply chains as either GGL-Certified or GGL-Controlled biomass, provided it is accompanied by the correct references to the Endorsed scheme certification listed in **Guidance B.0.i – FIT/FIP Raw materials statement template**.
- 2.10 Suppliers and/or producers that have (or will be) visited and audited by a Certification Body within the scope of this document under D.6 during 12 months are excluded from the supplier verification programme.



Note – The audit of a supplier and/or producer by a Certification Body is not a prerequisite for that supplier and/or producer to start delivering to a certified First Collector which has completed the supplier verification of that supplier and/or producer. This is also the case if it concerns a new supplier to the First Collector.

Principle 3. All raw material in GGL Category 5 originating from suppliers and/or producers shall be traceable to its Point of origin

- 3.01 The producer and/or supplier shall record all incoming and outgoing volumes of biomass, by material category and amount.
- 3.02 All inputs and outputs shall correspond, taking the relevant conversion factors into account:
- Conversion factors for the biomass
 - Amounts of biogenic residues generated
 - Internal energy use of raw materials
 - Electricity or energy produced

Note - For reference only and as an indicative example: a medium-sized crude palm-oil mill processing on average 30 MT of Fresh Fruit Bunches (FFB) per hour, will typically generate 1-2 MT of PKS as biogenic residues and waste from that.

Because:

- The conversion factor is around 22-23% of that for Empty Fruit Bunches (EFB);
 - Of which, 60-70% can be used as biomass, so 4-10 MT (13-16%) of the total hourly FFB-production;
 - Of which, in turn, around 50-75% is for Internal energy use, so 3-8 MT (7-12%) of the total hourly FFB production; and
 - The remaining 25-50% of PKS can be sold to Traders or First Collectors. That would be about 1-2 MT (3-7%) of the total hourly FFB production.
- 3.03 All necessary documentation for each batch of raw material shall be available to the First Collector, including: purchase records, production records (daily and monthly), sales documents, waste-disposal agreements, delivery slips, and waybill tickets. The deviation in tonnage during transport, measured at the Point of origin and at delivery, shall not exceed generally accepted, industry-specific measurement inaccuracies. If the deviation is larger, it shall be explained and substantiated by an analysis of the raw material at a qualified laboratory (e.g., caused by changes in moisture content).

Principle 4. No raw material originates from “source land” that was deforested after 31 December 2020

- 4.01 The location where the biomass was originally harvested or farmed, which precedes the Point of origin where the biogenic residues or waste arise, is referred to as “**source land**”.
- 4.02 Biomass shall not come from source land that was deforested after cut-off dates defined by national laws or regulations of the source land, unless the raw material is certified under an endorsed certification scheme per **Instruction B.1 – FIT/FIP Endorsed schemes**.



- 4.03 In any case, and even when national laws or regulations do not stipulate this, raw material shall not come from source land that had the following characteristics of forest or wooded land after 31 December 2020:
1. It spanned more than 0.5 hectares;
 2. The top of its trees reached 5 metres on average or more;
 3. The canopy cover of its trees covered 10% of its area or more;
 4. If condition 2 and 3 are temporarily not met (e.g., due to forest management activity or natural disasters), these conditions are expected to be met if the area is left undisturbed; and
 5. It is not land predominantly used for agricultural or urban purposes.

Note - The cut-off date for GGL Category 5 biomass (Biogenic residues and wastes) is in accordance with the EU Deforestation Regulation (EU) 2023/1115. This cut-off date differs from the applicable dates in **GGLS2 – Agricultural source criteria** and **GGLS5 – Forest management criteria**, which concern GGL Categories 1, 2, 3 and 4 biomass. The date aligns with generally applicable requirements under FIT/FIP that are (and were already) in place, e.g., Presidential Instruction No. 5/2019, signed on 7 August 2019 for Indonesia, and MSPO Standards 2.0, article 4.1.2.1 sub a) for Malaysia.

- 4.04 The supplier and/or producer shall prepare land-related evidence (e.g., public satellite records from independent databases, certification records of primary, co- or by-products) that is recorded and available for auditing by the Certification Body of their First Collector(s) to substantiate compliance with this Principle.

Principle 5. The producer does not deliberately produce any waste or residues, nor does it expand the operation to produce more waste or residues.

- 5.01 For each supplier and/or producer, the First Collector shall annually assess that the conversion factors for harvested or farmed feedstock, produced primary goods, raw materials, and biogenic residues and waste fall within an acceptable, industry-specific range. The results of these assessments are retained for verification by the Certification Body.
- 5.02 Suppliers and/or producers shall not:
- Deliberately convert raw materials into biogenic residues or waste;
 - Intentionally modify or contaminate raw materials to increase the share of biogenic residues or waste in total amounts produced; nor
 - Increase primary production to augment the amount of biogenic residues or wastes.

Principle 6. A management system is in place for all operations at the site.

- 6.01 The management of the supplier and/or producer shall define and document its commitment to the requirements set out in this instruction and to overall ethical business conduct. A publicly available statement of its commitment shall be available.
- 6.02 The management system covers or references all commitments and procedures relating to compliance with this instruction.
- 6.03 The management system contains an overview of the relevant stakeholders (e.g.,



adjacent smallholders) of the operation, including, where applicable, their contact details.

- 6.04 Suppliers and/or producers with a production capacity exceeding 30 (thirty) MT per hour for the primary product shall provide an official Environmental Monitoring document.
- 6.05 Suppliers and/or producers with a capacity smaller than that specified in 6.04 shall at least analyse and monitor a representative sample of the raw material to verify that it does not contain any compound listed in the **GGL List of prohibited materials**, annually when relevant, in an ISO 17025-accredited laboratory.
- 6.06 The management system includes a section outlining the supplier and/or producer's environmental ambitions and the measures taken to achieve them, including, but not limited to, reducing GHG emissions, improving operational efficiency, and protecting air and water resources. Additionally, plans shall be developed and implemented to minimise GHG emissions and pollution over time.

Principle 7. Relevant international, national, regional and local laws and regulations are complied with in all operations and transactions.

- 7.01 The supplier and/or producer shall have the legal right to use the land on which it operates.
- 7.02 The supplier and/or producer shall comply with all applicable legal requirements for sourcing, producing and selling the product within the scope of the verification.
- 7.03 The supplier and/or producer complies with all tax and royalty obligations.
- 7.04 All locally applicable anti-corruption legislation is complied with. If no anti-corruption legislation exists, the supplier and/or producer shall implement alternative anti-corruption measures proportionate to the scale and intensity of the management activities and the risk of corruption.
- 7.05 The supplier and/or producer has established a policy on ethical business conduct and a monitoring system to ensure compliance.

Principle 8. Labour rights of workers and staff are safeguarded.

- 8.01 HR processes, such as recruitment, training, retirement, and contract termination, have a procedure in place.
- 8.02 Wages shall meet or exceed minimum industry or national standards or other recognised wage agreements, such as those agreed by the local community.
- 8.03 Suppliers and/or producers are committed to supporting and promoting the principles and rights at work, as set out in the "Fundamental Principles and Rights at Work (1998) and its Follow-up (2022)", issued by the International Labour Organisation (ILO). They shall comply with applicable national labour laws in their countries of operation.
- 8.04 In addition, suppliers and/or producers shall document in their Management system (as referred to in Principle 6) the criteria and measures implemented to comply fully with the ILO requirements regarding minimum working age and child labour.

Principle 9. The health and Safety of workers and staff are protected.

- 9.01 The health and safety of all staff and workers at the supplier and/or producer



shall be protected through risk identification, safety programmes to mitigate risks, training and the provision of personal protective equipment.

- 9.02 The recommendations in the “Safety and Health in Agriculture Convention” (2011) and the “Working Environment (Air Pollution, Noise and Vibration) Convention” (1977) of the ILO shall be followed by the supplier and/or producer.
- 9.03 Workers and staff are informed about labour rights and health and safety requirements.

Principle 10. Transparency and a grievance mechanism are established.

- 10.01 The management commitment of the supplier and/or producer, along with all relevant documentation and procedures required by this instruction, is made available to First Collectors and Certification Bodies upon request, in an appropriate format and language.
- 10.02 A grievance mechanism is in place for stakeholders to file complaints or requests, which are documented in the management system and followed up upon.

Principle 11. Relevant documents, yearly records and summaries are stored.

- 11.01 The supplier and/or producer shall keep records of the nature, quantities, dates and destinations of material sold as waste or residues, such as invoices, for a minimum of 3 years.
- 11.02 Yearly summaries are prepared, targets for the upcoming year are set and signed off by management, covering at least, but not exclusively:
 - a) The total output of residues;
 - b) The changes in the number of workers and staff;
 - c) The number and kind of work-related accidents;
 - d) The amount and kind of complaints filed and their resolution; and
 - e) A review of the environmental ambitions and performance, as well as related incidents.

Appendix A. Applicability of GGL Standards for FIT/ FIP

This Illustration v from **GGLS1 – Chain of custody criteria** illustrates which GGL Standards apply next to GGL Modular Instructions for FIT/FIP, and what documentation is required across the GGL supply chain in the GGL Module for FIT/FIP.

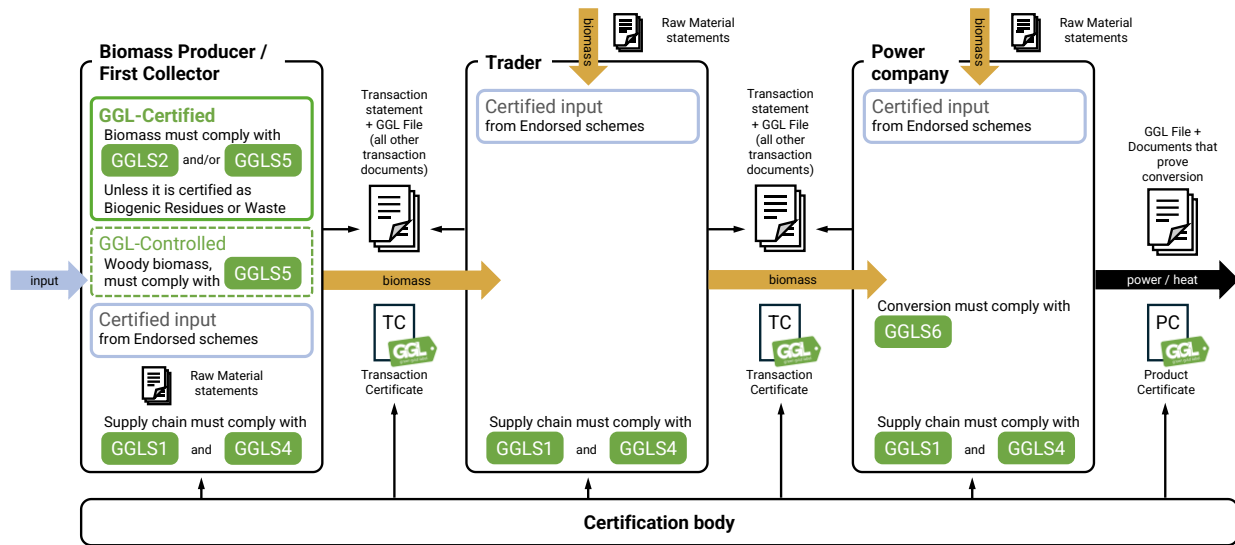


Illustration v – Applicability of GGL Standards