

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 1-9

Valid from 1 January 2026 (Adoption date)

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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 - 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 - GGLS1 – Chain of custody criteria - GGLS2 – Agricultural source criteria - GGLS4 – Transaction and Product Certificate - GGLS5 – Forest management criteria - GGLS6 – Power company criteria GGL Operating documents - GGL Participant fees - GGL Logo and tradename use - GGL List of prohibited materials	RED – Instructions - 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 FIT / FIP – Instructions ➔ Instruction B.0 – FIT/FIP Module - Instruction B.1 – FIT/FIP Endorsed schemes - Instruction B.2 – FIT/FIP GHG emissions SDE++ – Instructions - Instruction C.0 – SDE++ Module - Instruction C.1 – SDE++ Endorsed schemes - Instruction C.2 – SDE++ GHG emissions	RED – Guidances - 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 FIT / FIP – Guidances - 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 residues - Guidance B.2.v – FIT/FIP LCGHG default values SDE++ – Guidances - Guidance C.0.i – SDE++ Raw materials statement template - Guidance C.0.ii – SDE++ Transaction certificate template - Guidance C.0.iii – SDE++ Audit template	GHG Guidance Guidance ABC.1 – GHG calculator
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Changes and transitioning

This section lists the major changes in this version 1-9 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 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	D	Removed exception for Traders in Eligible fuels as GGL biomass: these have to be certified at all times
4	Content	D.3	Included specific sampling frequency and sampling size requirements, previously located in GGL Regulation .
5	Content	D.6	Clarified difference between Biomass Producers and First Collectors as certified GGL Participants vs. producers and suppliers of raw materials. Added sampling requirements for warehouses.
6	Content	F.2	Clarified how the supplier verification programme by First Collectors differs from self-declarations by suppliers from certification audits
7	Text feature	Document navigation	Included document navigation
8	Text feature	Changes and transitioning	Included changelog and transitioning procedure between previous and current version
9	Text feature	Glossary	Included glossary
10	Formatting	All	Changed and edited formatting, text and wording for clarity and readability
11	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	1 January 2026
Effective date	2 March 2026
Transition period	31 December 2026

Glossary

Term	Definition
Adoption date	New (versions of) GGL documents state their Adoption date in the transitioning section. This is the date after which certification against the GGL Scheme and the specific document to which the Adoption date applies, is possible. Certification against previous versions remain valid until the Effective date of such document.
Audit	Formal examination and inspection by a GGL approved Certification Body of an organization's processes and activities to verify compliance. By contrast, an audit is different 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.
Biomass producer	The first participant of the GGL supply chain for woody and agricultural biomass (GGL categories 1, 2, 3 and 4) who produces raw material by harvesting or farming activities for which Raw Materials Statements are delivered. Biomass Producers are comparable to First Collectors in the sense these are the first GGL Participants in a GGL supply chain.
Biomass	Biomass means the biodegradable fraction of products, waste and residues from biological origin from agriculture, including vegetal and animal substances, from forestry and related industries, including fisheries and aquaculture, as well as the biodegradable fraction of waste, including industrial and municipal waste of biological origin.
Certification Body / CB	An independent third party that evaluates and certifies the certification process. Certification Bodies approved by GGL for 1 or more GGL Scopes, are listed on the GGL website.
Credit system / volume credit system	Volume credit system is a chain of custody approach and mass balance system that allows tracking the net amount of sustainable materials 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. GGL does not allow application of the volume credit system for all types of biomass and for all GGL Scopes. The system deployed by GGL to support mass balance administrations is defined in GGLS1 - Chain of Custody criteria.
Effective date	New (versions of) GGL documents state their Effective date. This is the date after which only certification against the GGL Scheme and the specific document to which the Effective date applies, is effective. Certification against previous versions of such document is no longer valid.
Eligible fuel	Any biomass fuel listed in applicable GGL Module that is eligible for GGL certification.
Environmental Monitoring document	A comprehensive policy published by the producer, that describes how the different aspects of environmental monitoring is examined including site selection, schedule of tests and analyses, data management and methods to be used.

Term	Definition
First Collector	The first participant of the GGL supply chain for residues and wastes (GGL category 5) who collects the raw material from suppliers by whom Raw Materials Statements are delivered. First Collectors are comparable to Biomass Producers in the sense these are the first GGL Participants in a GGL supply chain.
FMU / Forest Management Unit	A well defined and demarcated land area, predominantly (i.e., >50%) covered by forests, with planned human intervention in a forest ecosystem to achieve specific goals and objectives.
GGL Biomass	Biomass that has been certified with a GGL-Certified or GGL-Controlled claim as the case may be.
GGL Categories	Biomass from 1 of the 5 categories that GGL recognizes being: 1) Woody biomass from large FMU's (> 500 hectares) 2) Woody biomass from small FMU's (< 500 hectares) 3) Residues from natural site and landscape management 4) Agricultural biomass 5) Biogenic residues and waste
GGL Module	These are the Instructions and Guidance documents based on which GGL has been approved and recognized as a Certification scheme under different legal and voluntary frameworks (e.g., RED in Europe, FIT/FIP in Japan).
GGL Scope	Means the scope of a Certification Body's license to perform certification services or Participants to trade biomass within GGL, and use the GGL Trademark. A GGL Scope is a combination of (a) regulation(s) under which GGL is recognized per its different modules and (b) types of biomass. Each GGL Participant and each CB is limited to perform activities under the GGL Scheme by the GGL Scope for which it is recognized. GGL Scopes are defined 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 & approved by the relevant authorities (e.g., EU for REDII, METI for FIT/FIP) to holds the equivalent status. GGL-Certified biomass meets all criteria for sustainability and legality.
GGL-Controlled	Woody biomass that has been certified against some of the applicable GGL criteria, or against a certification scheme other than GGL which has been endorsed & approved by the relevant authorities (e.g., EU for REDII, METI for FIT/FIP) to holds the equivalent status. GGL-Controlled biomass can only be from GGL-categories 1, 2 or 3 for Woody biomass, and only meets specific key criteria for sustainability. The sustainability of GGL-Controlled woody biomass has therefore been certified to a lesser extent than GGL-Certified woody biomass.
GHG (Greenhouse Gas) Emissions	Greenhouse gases constitute a group of gases contributing to global warming and climate change. It includes - according to the Kyoto Protocol - seven gases: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulphur hexafluoride, 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.

Term	Definition
Group Auditing	Auditing of a group of participants, as if they are one organisation. GGL allows this only for groups of Points of Origin, with strict requirements as set out in the applicable Instructions.
Industrial grade roundwood	Industrial grade roundwood means saw logs, veneer logs, round or split pulpwood, as well as all other roundwood that is suitable for industrial purposes, excluding roundwood the characteristics of which, such as species, dimensions, rectitude and node density, make it unsuitable for industrial use as defined and duly justified by countries according to the relevant forest and market conditions.
Internal energy use	Energy used during the transformation of raw material into biomass, e.g., drying or sieving.
Mass balance	Mass balance is a chain of custody approach that allows tracking the net amount of sustainable materials 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	Economic operator that has been certified under GGL per GGL Regulation Section G or against a certification scheme other than GGL which has been endorsed & approved by the relevant authorities (e.g., EU for REDII, METI for FIT/FIP) to hold the equivalent status, such as forest and agricultural biomass producers, waste and residue producers, first gathering points, collectors, suppliers, traders, processing plants and conversion plants (end-users).
Point of origin	The location where the raw material is originally generated.
Post-consumer material	Material that is reclaimed from a consumer or commercial product that has been used for its intended purpose by individuals, households or by commercial, industrial and institutional facilities in their role as end-users of the product and is not economically nor practically suitable for any further production processes as input material.
Producer	Producer of raw material to a First Collector under the supplier verification programme, who may or may not be certified as a GGL Participant.
Publication date	New (versions of) GGL documents state their Publication date. This is the date at which that version is published. Certification against the new version of such document is not possible until after its Adoption date.
RMS / Raw Material Statement	A certified statement of raw material brought into GGL supply-chains by a GGL Participant that meets requirements of GGLS1 - Chain of custody criteria and of applicable GGL Modules.
Residue	Residue means a substance that is not the end product(s) that a production process directly seeks to produce; it is not a primary aim of the production process and the process has not been deliberately modified to produce it.
Site	Site means a geographical location, logistical facilities, transmission or distribution infrastructures with precise boundaries within which products can be mixed.
Supplier	Supplier of raw material from a Point of Origin to a First Collector or Biomass Producer. A supplier may not be certified as a GGL Participant.

Term	Definition
TC / Transaction certificate	A certified statement of a transaction between GGL Participants that meets requirements of GGLS4 - Transaction and product certificate .
Transition period	New (versions of) GGL documents state their Transition period. This is the period within which (re-)certification decisions taken prior to the Effective date against the previous version of the current document, remain valid. Initial audits, renewal audits and surveillance audits by a Certification Body during the Transition period shall only take place against the current version of the GGL Scheme document to which the Transition period applies.

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 is compliant with the METI (Ministry of Economy, Trade and Industry) FIT (Feed-in Tariff) and FIP (Feed-in Premium) scheme.

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 specific requirements from 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-recognized accreditation body per 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 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

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 match directly with Japanese FIT/FIP categories of biomass. 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* - Eligible fuels (PKS, OPT and EFB) - Newly eligible fuels since 1-1-23 (incl. Coconut shells, ...)	X	X	X	GGL-Certified: - GGLS2 - GGLS1 - GGLS4 Endorsed schemes-certified biomass	GGL-Certified: - GGLS1 - GGLS4 Endorsed schemes-certified biomass
C. Woody biomass* - Processing residues (C.1.1) - Other harvested trees (C.1.2) - Forestry residues (C.1.3)	GGL-Certified or GGL-Controlled: - GGLS5 - GGLS1 - GGLS4 Endorsed schemes-certified biomass	GGL-Certified or GGL-Controlled: - GGLS5 - GGLS1 - GGLS4 Endorsed schemes-certified biomass	GGL-Controlled: - GGLS5 - GGLS1 - GGLS4 Endorsed schemes-certified biomass	X	GGL-Certified: - 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

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 constitute biogenic wastes and residues from GGL Category 5. In specific cases the eligible fuels constitute primary agricultural residues from GGL Category 4, which require principles and requirements from **GGLS2 -Agricultural source criteria** to be met.

B.2 Biomass originating from palm oil plantations can only be included in GGL if this 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 apply as per 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

- 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. Evidence shall be offered by sawmills or other processing facilities.
- 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 (confirmed by official notification of felling).
- 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 of dams, etc. 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 from a forest or Forest Management Unit (FMU), principles and requirements from **GGLS5 - Forest management criteria** must be met. Whether the originating lands qualifies as a forest or FMU is determined by the following criteria:
- 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 to reach these thresholds in situ; and,
 - The land is not located in a predominantly urban area and is not under use as a park or public green space. Note: this biomass may qualify as GGL Category 3; and,
 - The land is not under agricultural use, for the production of products other than wood, for example in a plantation. Note: this biomass may qualify as GGL Category 4.
- 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** More detailed requirements for the eligibility of woody biomass in Categories 1, 2 or 3 under Japanese FIT/FIP regulations are listed in section G below.

D. Applicability and auditing

D.1

Requirements for certification against this GGL Module are described in Principle 2 of this document below (in section F). These replace:

- Requirements from Principle 5 (5.11 – 5.14) of the **GGLS1 – Chain of Custody** for biogenic wastes and residues (GGL Category 5), and
- Requirements from **GGLS1 – Chain of Custody** to the extent that document provides guidance for Raw material statements.

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.

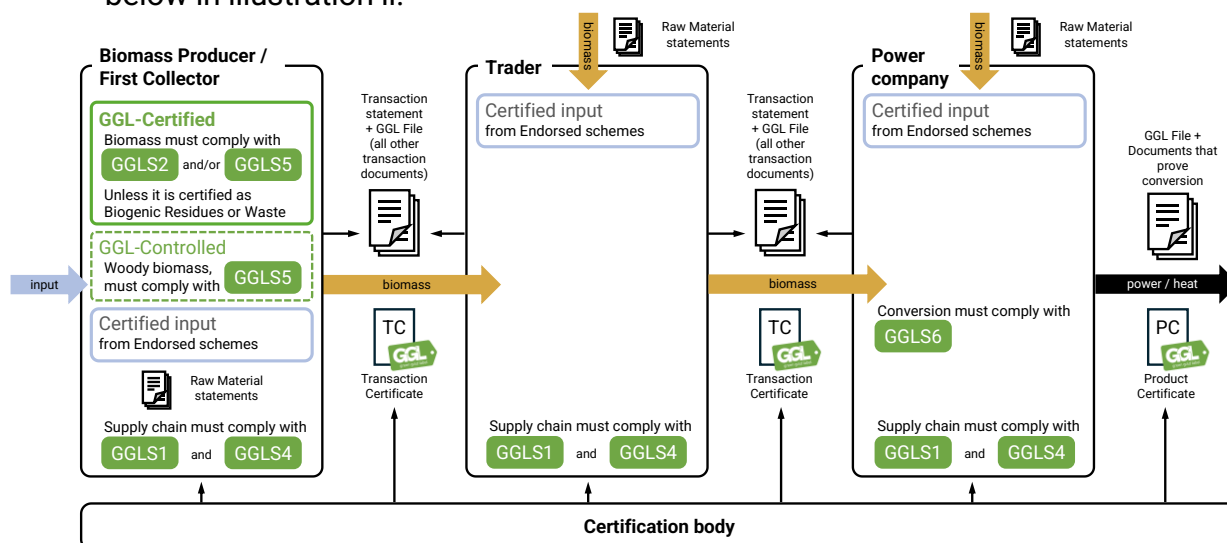


Illustration ii – applicability of GGL Standards

D.2

GGL-Certified or GGL-Controlled biomass is recognized under FIT/FIP as defined in **GGLS1 – Chain of custody criteria** Principle 5. 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 publish the share of GGL-Certified biomass in that mix that is being used for power production, on their websites for each fiscal year in addition to any reporting requirement from **GGLS6 – Power company criteria** that may apply.

D.3

Audits conducted against **GGLS2 – Agricultural source criteria**, and **GGLS5 – Forest management criteria** shall include verification at or agricultural supplier or forest management unit (FMU) level respectively, based on the sampling method below.

D.3.1 The following formula is applied per class size:

X = sample size per size class

y = FMU's / Supplier units included in the scope of the certificate

The outcome of the formula is rounded to the upper whole number to determine the number of units to be sampled.

D.3.2 Sampling process for large and medium size FMUs and agricultural Biomass producers

Size class	Main evaluation	Surveillance	Re-evaluation
> 10,000 ha	$X = y$	$X = 0.8 * y$	$X = 0.8 * y$
> 1,000 - 10,000 ha	$X = 0.3 * y$	$X = 0.2 * y$	$X = 0.2 * y$

D.3.3 Sampling process for small size FMUs and agricultural Biomass producers

Size class	Main evaluation	Surveillance	Re-evaluation
100 -1,000 ha	$X = 0.8 * \sqrt{y}$	$X = 0.6 * \sqrt{y}$	$X = 0.6 * \sqrt{y}$
< 100 ha	$X = 0.6 * \sqrt{y}$	$X = 0.3 * \sqrt{y}$	$X = 0.3 * \sqrt{y}$

D.3.3.1 The audits at FMU-level shall be used to confirm compliance of the Participants' group verification programme listed in A.3 under Option 2 (Verification of groups or regional associations) of **GGLS2 – Agricultural source criteria** or **GGLS5 - Forest management criteria**.

D.3.3.2 For Participants' individual verification listed in A.3 under Option 1 (Individual verification) of **GGLS2 – Agricultural source criteria** or **GGLS5 Forest - management criteria**, the Certification Body shall conduct an onsite audit at 100% of the FMUs included in the scope of the Participants verification programme. Sampling does not apply as per D.3.2 and D.3.3 above.

D.3.3.3 The selection process for FMUs/suppliers and the accompanying supply chain shall include the following points to ensure that the drawn sample covers the highest and widest range of risks:

- Newly added FMUs/suppliers not previously sourced from
- Stakeholder comments or allegations
- Size of FMUs
- Geographic distribution
- High risk species (e.g. red list, CITES)
- Random selection

D.4

The Certification Body shall develop locally adapted verifiers at criterion or indicator level 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

At least one expert shall be used to develop and train local verifiers. The expert shall at minimum have work experience or training/education in the country where audits against **GGLS5 - Forest management criteria** or **GGLS2 - Agricultural source criteria** are conducted in relation to the GGL Scope of the audits for which the verifiers are developed.

D.6

Audits conducted against **Instruction B.0 - FIT/FIP Module** where the supplier verification programme is applicable per Principle 2 under section F below, shall include on-site verification of the (sub-)suppliers included in the scope of the verification programme - e.g., Crude Palm Oil (CPO) mills - by a Certification Body following the sampling method described below.

This verification is included in the scope of the annual audit of the GGL Participant, which is called the First Collector in the case of wastes and residues of GGL Category 5.

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, producers, Points of Origin or warehouses in the above-mentioned case is:

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

X = Sample size for on-site audits by a Certification body

Y = Size of the group of producers of the biomass (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 group of suppliers.

D.6.2 The following suppliers, producers and CPO mills are excluded when calculating the sample size and cannot be selected for 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 2.08 and / or 2.09 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 raw material supplier or producer level, shall be used to confirm

compliance of the Participant's verification programme to all requirements mentioned in Principle 2 and Principle 3 below.

D.6.4 Non-producing suppliers (e.g., collectors or traders of biomass material) 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.

D.7

All evaluations (see D.3.2 and D.3.3) shall follow clear, documented procedures and shall cover:

- a) Changes to the forest area included in the scope of the certificate, including additions, exclusions, or FMU boundary changes;
- b) Changes to the certificate holder's management system;
- c) Complaints received;
- d) Accident records;
- e) Training records;
- f) Operational plan(s) for the next 12 months;
- g) Inventory records;
- h) Harvesting records;
- i) Records of sales;
- j) The (group) management system
- k) The updated list of Group Members (if applicable);
- l) The rate of membership change within the group in relation to the specified increase and maximum group size;
- m) Formal communication / written documents sent to Group Members by the Group
- n) Manager since the previous Certification Body surveillance;
- o) Records of raw material inputs in accordance with the definitions of GGL biomass categories;
- p) Records of monitoring carried out by the Group Manager (when applicable); and
- q) Records of any corrective actions issued by the Group Manager (when applicable).

D.8

In addition, surveillance and re-evaluation audits (see D.3.2 and D.3.3) shall include:

- r) Evaluation of the certificate holder's compliance with all conditions (corrective actions) on which certification is based;
- s) Review of any complaints or allegations of non-conformity with any aspect of the GGL Scheme; and
- t) Evaluation of a sample of sites and records, and interviews with affected stakeholders sufficient to verify that management systems (documented or



undocumented) are working effectively and consistently in practice, in the full range of management conditions present in the area under evaluation.

E. Group or regional association

E.1

Where a Participant is applying for a group or regional association as per A.3 under Option 2 (Verification of groups or regional associations) of **GGLS2 – Agricultural source criteria** or **GGLS5 - Forest management criteria**, the Certification Body shall verify compliance with the relevant GGL Standards and supporting documents within the scope of the certificate, including at the level of group member.

E.2

Each non-conformity against the applicable certification requirements shall be evaluated to determine whether it constitutes a minor or major non-conformity at the level of the individual requirement.

E.3

The Certification Body must explicitly define the methodology by which the Certification Body determines 'failure' of a group evaluation: at the time of main evaluation AND at the time of surveillance.

E.3.1 The specification of 'failure' shall also distinguish between 'group failure' and 'member failure', where 'group failure' shall lead to corrective actions, suspension or withdrawal of the group from the scope of the Participants certificate, and may be caused by:

- a) failure to fulfil a Group Manager responsibility, such as administration, management planning, records, monitoring, etc;
- b) failure of the Group Manager to ensure that Group Members comply with a condition or corrective action issued by the Certification Body; and/or
- c) failure to fulfil Group Member responsibility(s), sufficient in number, extent and/or consequences to demonstrate that the Group Manager's responsibility for monitoring or quality control has broken down.

E.3.2 Depending on the number and seriousness, 'member failure' shall lead to corrective actions, suspension or expulsion of a Group Member.

Note - The number as well as the seriousness of 'member failures' may each contribute to a group failure: many minor failures or few major failures may both suggest a breakdown in the group system for quality control, and may be considered sufficient reason to withdraw the Group Scheme from the scope of the Participants certificate.

E.4

The Certification Body shall carry out an analysis and description of each forest management units (FMU) and agricultural supply unit proposed or included in the scope of the group.

E.5

The Certification Body shall establish appropriate sampling of FMUs or agricultural

supply unit within the scope of the evaluation as per requirement D.3.

E.6

The Certification Body shall carry out an initial analysis of each suppliers' management systems and capacity to administer the requirements of those systems.

E.7

The Certification Body shall carry out an explicit review of conformity with all applicable requirements for both Group Managers and Group Members. This shall include a sufficient number of applicable evidences including but not limited to:

- Interviews
- Documents
- Observations

F. Additional sustainability criteria for FIT/FIP certification

F.1

The sustainability Principles 2 through 10 listed below define GGL's supplier verification programme. These apply to producers and suppliers 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.

F.2

The supplier verification programme applies only when the producer or supplier 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 to not give as strong an assurance of sustainability like 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 self-declarations of producer or supplier themselves.

F.3

Assurance on compliance of suppliers and / or producers against the criteria in this document is the responsibility and for 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**.

F.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.

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

- 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 lays down GHG calculation requirements per Japanese FIT / FIP requirements.
- 1.02 The Biomass Producer or First Collector shall have a plan aimed at achieving and increasing sourcing of certified biomass on an annual basis. The plan shall be updated annually and at minimum include a 5-year targeted forecast including an annual increase of certified inputs under an endorsed scheme or under GGL.

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

- 1.03 All plans shall be approved at the highest management level of the Biomass Producer or First Collector.

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

- 2.01 Specifically for Biogenic Residues in GGL Category 5 that may originate from raw material under **Instruction B.0 – FIT/FIP Module** under B (Eligible fuels) or C (Woody material), GGL has designed this Supplier Verification programme. Biomass from all other GGL Categories have their own GGL Standards with legality and sustainability Principles and Criteria. Biogenic residues do not and its raw material inputs can originate from a web of collectors and traders.
- 2.02 Supplier Verification cannot cover more supply chain activities than the initial collection of the biogenic residues and waste upon origination, and its transportation to the First Collector. Further processing activities like e.g., drying, crushing, sieving, pelletizing 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.
- 2.03 This Supplier Verification programme has been designed in order to:
 - Place responsibility of the verification process with First Collectors, which makes these verification programs certifiable since First Collectors are GGL Participants; and
 - Be more verifiable than self-declarations, through which suppliers claim their adherence Principles and Criteria without a “second pair of eyes”; and
 - Be less stringent than certification by a Certification Body. For example: the visits and audit of a supplier by a Certification Body prior to first deliveries, is not a prerequisite for that supplier to start delivering to a certified First Collector which has completed the supplier verification of that supplier This is also the case if it concerns a new supplier to that First Collector.

Note 1 - D.6 above is still applicable with regards to the sampling size for on-site audits of suppliers and producers by Certification Bodies, as part of the certification of First Collectors.

Note 2 – for suppliers and producers delivering to multiple First Collectors under their respective supplier verification programmes may benefit from efficiencies to be certified as First Collector independently and become a GGL Participant.

- 2.04 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 document by both the Participant and the Certification Body. Any legal owners (including producers, suppliers and sub-suppliers) of the material shall sign the Raw Material Statement (or separate statements) in order 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. In case a GGL transaction certificate is provided by the Participant, the raw material statement is not required. All relevant evidence shall be requested from suppliers to substantiate whether the material meets the applicable GGL criteria.
- 2.05 Verification against the requirements from this **Instruction B.0 - FIT/FIP Module** by the Participant shall take place prior to selling the material as GGL-Certified or GGL-Controlled as applicable and must meet the following requirements.
 - 2.05(a) Verification shall cover Principle 3 through Principle 10 below, including underlying criteria, substantiated by a verification report per supplier that can be based on **Guidance B.0.iv - FIT/FIP Supplier verification for residues**.
 - 2.05(b) Verification shall be carried out at producer-level for each supplier included in the scope of the supply chain.
 - 2.05(c) Verification shall be reported and documented adequately with findings and evidence for each criteria, to allow its results to be reproduced by third parties.
 - 2.05(d) The scope of verification shall be clearly defined as relevant to the applicable deliveries and origin (e.g. which supplier, which Points of Origin of the biomass at FMU/plantation/farm level, other suppliers, etc.)
 - 2.05(e) Verification results and evidence shall be available to the Certification Body upon request.
 - 2.05(f) Verification shall be carried out by qualified and experienced personnel, relevant to the scope of the verification. 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.
 - 2.05(g) Relevant stakeholders and experts shall be consulted at least 6 weeks prior to the verification taking place.
 - 2.05(h) Locally adapted verifiers shall be developed for each criteria assessed. Specific evidence based on country, region or other locally specific conditions shall be included.
 - 2.05(i) Special care shall be taken to verify the mass balance and material accounting records of the producer in order to assess that input and output volumes are corresponding and originate from the recorded plantations. This shall be clearly included in the report.

Note - Material included under this document and sold as GGL-Certified or GGL-Controlled shall be separated and segregated from other non-certified material.



GGL-Certified or GGL-Controlled biomass shall not be mixed until the last and final inventory immediately before end-use.

- 2.05(j) Verification must be carried out covering the full supply chain starting with the supplier and any traders or processors between the producer and First Collector.
- 2.05(k) Identified non-conformities, risk mitigation and corrective actions resulting from the verifications shall be clearly recorded and documented.

Note - In the context of this document, producers are suppliers of raw material to First Collectors in GGL Category 5. These producers receive the input material from its original Point of Origin (e.g. a plantation) and process the biomass into residues traded as GGL-Certified. For example:

- A collection facility could be First Collector for sawdust as woody residues from saw mills in GGL Category 5.
 - 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 also like all other suppliers.
- 2.06 Only suppliers or producers that have been actively supplying any biomass to the First Collector in a given year, shall be subjected to audits by the Certification Body during that year. Verification against the requirements from this instruction document shall be repeated every 12 months by the First Collector upon continued or repeated deliveries from the same supplier or producer.
 - 2.07 Any non-conformities or well-funded complaints/allegations 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.
 - 2.08 Suppliers and 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 directly with correct references to the Endorsed scheme certification listed on the **Guidance B.0.i – FIT/FIP Raw materials statement template**.
 - 2.09 Suppliers and producers that have (or will be) visited and audited by a Certification Body within the scope of this document under D.6 during a 12-month period are excluded from the supplier verification programme.

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

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

- 3.01 The producer and / or the supplier shall record all incoming and outgoing

volumes relevant to the biomass based on the material categories and quantities.

3.02 All inputs and outputs shall correspond, taking the relevant conversion factors into account:

- Conversion factors for the biomass
- Weight
- Internal use of raw materials
- Electricity or energy produced

Note - For reference only and as example: a medium-sized CPO mill processing on average 30 mt of Fresh Fruit Bunches (FFB) per hour, will typically:

- Yield around 22-23% of that volume as 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 residual 25-50% can be available for sale to Traders or First Collectors - so 1-2 mt (3-7%) of the total hourly FFB-production.

3.03 All necessary documentation shall be available including: purchase records, production records (daily and monthly records), sales and delivery documents and waybills tickets. The maximum deviation in tonnage during transportation shall be between 0,3% and 1% (e.g., due to changing moisture content) and can never increase in calorific value over time.

Principle 4. The producer does not deliberately produce any waste or residues, nor expand the operation in order to produce more waste or residues.

- 4.01 Producers with large capacity for production (I.e., ≥ 30 mt primary product per hour) shall provide an official Environmental Monitoring document.
- 4.02 Producers with smaller capacity shall at least analyse and monitor the raw material for contents of toxic compounds periodically, in ISO-17025 laboratories.

Principle 5. A management system is in place for all operations at the processing site.

- 5.01 The management of the production or processing unit shall define and document its commitment to the requirements laid out in this standard and overall ethical business conduct. A publicly available statement on its commitment shall be available.
- 5.02 The management system covers or references all commitments and procedures regarding compliance to this standard.
- 5.03 The management system contains the producers' commitment and policy to respecting human rights and preventing any form of discrimination.
- 5.04 The management system contains an overview of the relevant stakeholders of the operation, including, where applicable, the contact information of a representative.
- 5.05 The management system contains a section outlining the environmental ambitions and measures of the operator, including but not limited to the

reduction of GHG emissions, the improvement of operating efficiency and the protection of resources, such as air and water. Additionally, for GHG emissions, other emissions and pollution, plans shall be developed and implemented to minimize and reduce these emission and pollutions over time.

Principle 6. Relevant international, national, regional and local laws and regulations are complied with in all operations and transactions.

- 6.01 The producer, operator of the production or processing unit, or supplier (hereafter: operator) holds the legal right to use the land on which it is set up.
- 6.02 The operator shall meet all the applicable legal requirements in order to source, produce and sell the product included in the scope of the verification.
- 6.03 The operator complies with all obligations to pay taxes and royalties.
- 6.04 All applicable anti-corruption legislation is followed. If no anti-corruption legislation exists, the operator shall take alternative anti-corruption measures proportionate to the scale and intensity of the management activities and the risk of corruption.
- 6.05 The operator has established a policy on ethical business conduct as well as a monitoring system to ensure legal and ethical business conduct.

Principle 7. Labour rights of workers and staff are safeguarded.

- 7.01 A procedure for HR processes, such as recruitment, trainings, retirement and contract termination is in place.
- 7.02 Wages shall meet or exceed minimum industry or national standards or other recognized wage agreements, such as agreed by the local community.
- 7.03 It shall be ensured that the principles and rights at work as defined in the ILO “Declaration on Fundamental Principles and Rights at Work” (1998) are maintained and complied with, including that:
 - a) Freedom of association and the right to collective bargaining are respected for all workers of the operation;
 - b) All forms of forced or compulsory labour are eliminated;
 - c) All forms of child labour are eliminated; and
 - d) All forms of discrimination in respect of employment and occupation are eliminated.

Principle 8. Health and Safety of workers and staff are protected.

- 8.01 The health and safety of all staff and workers shall be protected through risk identification, safety programs to mitigate risks, training and the provision of personal protection equipment.
- 8.02 The recommendations in the “Safety and Health in Agriculture Convention” (2001) and the “Working Environment (Air Pollution, Noise and Vibration) Convention” (1977) of the ILO shall be followed.

Principle 9. Transparency and a grievance mechanism are established.

- 9.01 The management commitment and all relevant documentation and procedures as required by this standard are made available to stakeholders upon request in an appropriate format and language and workers and staff are informed about labor rights and health and safety requirements.

- 9.02 A grievance mechanism for stakeholders to file complaints or requests is in place and complaints are documented and followed up.

Principle 10. Relevant documents and yearly records and summaries are stored.

- 10.01 The operator 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.
- 10.02 Yearly summaries are created and targets for the upcoming year 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;
 - e) A review of the environmental ambitions and performance as well as related incidents, and;
 - f) A review of the efficiency of the policy for ethical business conduct.

G. More detailed instructions for Woody biomass from GGL Categories 1, 2 or 3

G.1

Certification Bodies shall not grant certification for the use 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 allowed as a FIT/FIP Woody biomass in ***Instruction B.0 – FIT/FIP Module*** in section C above.

G.2

Certification Bodies may grant certification to the following categories:

- G.2.1 Forestry residues meeting 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.
- G.2.2 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.
- G.2.3 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.
- G.2.4 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 having a woody origin: processing residues like offcuts, sawdust, bark and other residues generated during processing of wood in sawmills, pulp/paper mills, furniture and other wood products industries.

G.3

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.

Appendix A. Applicability of GGL Standards for FIT/ FIP

This illustration iii 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.

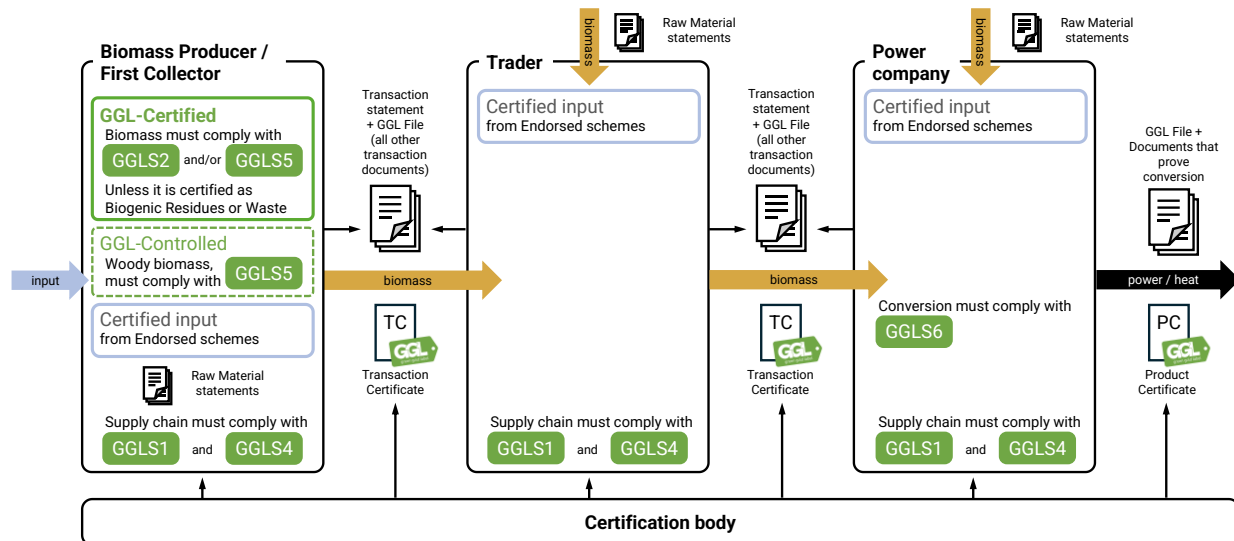


Illustration iii – applicability of GGL Standards