# Green Gold Label Guidance B.O.ii FIT/FIP Transaction certificate template

For GGL Transaction certificates that comply with Japanese FIT/FIP Regulations



# Guidance B.O.i FIT/FIP Transaction certificate template

Version 1-0 Valid from 1 January 2026 (Adoption date)

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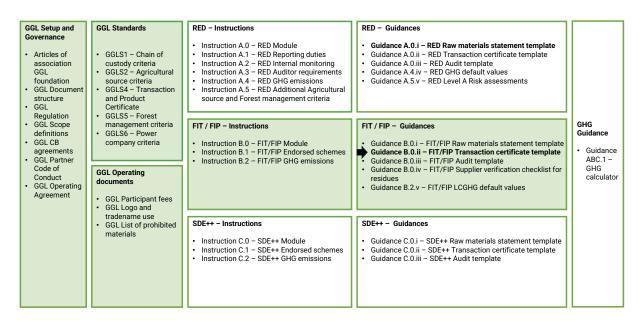


#### **Document navigation**

This document is part of the GGL Module for FIT/FIP. It concerns the template for Transaction certificates for all transactions between GGL Participants in GGL supply chains for FIT/FIP.

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.





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### **Changes and transitioning**

This is the first version of the Guidance document and builds on Annex A from *GGLS4* – *Transaction and Product Certificate Version v2-2 (March 2017)*.

In transitioning to this current version of this document, 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** 

Glossary Term	Definition
Actual value	Actual value means the greenhouse gas emissions savings for some or all of the steps of a specific biofuel, bioliquid or biomass fuel production process, calculated in accordance with the methodology laid down in the applicable GGL Module.
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.
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.
Default value	Greenhouse gas emission value attached to a batch of biomass material, and listed as "default value" in the applicable GGL Module, and that may, in circumstances specified in that GGL Module, be used in place of an actual value.
Disaggregated default value	Greenhouse gas emission value of a part of a supply chain, and listed as "disaggregated default value" in the applicable GGL Module. It may, in circumstances specified in that GGL Module, be used in the calculation of the total product greenhouse gas emission of the final product.
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.
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.
Foundation / GGL Foundation	Green Gold Label Foundation is the owner of the Green Gold Label (GGL) scheme including all technical documents, promotional documents and logo's, website(s) and other intellectual properties relating to GGL.



Term	Definition
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.
GGLedger	IT platform that is made available by GGL, and which is intended to be an up to date and secure register of all Data that is either confidential or public information. The certification bodies are to ensure all data in GGLedger is actual, correct and secure.
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 <sub>2</sub> eq) makes it possible to compare them and to determine their individual and total contributions to global warming.
Ligno-cellulosic material	Ligno-cellulosic material means material composed of lignin, cellulose and hemicellulose, such as biomass sourced from forests, woody energy crops and forest-based industries' residues and wastes.



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Term	Definition
Non-food cellulosic material	Material mainly composed of cellulose and hemicellulose, and having a lower lignin content than ligno-cellulosic material, including food and feed crop residues, such as straw, stover, husks and shells; grassy energy crops with a low starch content, such as ryegrass, switchgrass, miscanthus, giant cane; cover crops before and after main crops; ley crops; industrial residues, including from food and feed crops after vegetal oils, sugars, starches and protein have been extracted; and, material from biogenic waste, where ley and cover crops are understood to be temporary, short-term sown pastures comprising grass-legume mixture with a low starch content to obtain fodder for livestock and improve soil fertility for obtaining higher yields of arable main crops.
Participant / GGL Participant	Economic operator that has been certified under GGL per <i>GGL Regulation</i> 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.
Processing	This relates to activities that change the physical or chemical characteristics of the biomass material. For instance, chipping, drying and pelletisation change the density or heating value of the material, while digestion or pyrolysis change the chemical characteristics.
PC / Product certificate	A certified statement of a final conversion of GGL Biomass by GGL Participants that meets requirements of <b>GGLS4 - Transaction and product certificate</b> .
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.
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.
TC / Transaction certificate	A certified statement of a transaction between GGL Participants that meets requirements of <b>GGLS4 - Transaction and product certificate</b> .
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.
USI number	Unique identification number of GGL Participants and CB's and Users in GGLedger (consisting of 19 digits), comparable to a certificate number.
Waste	Waste is a substance or an object which the holder discards or intends or is required to discard, that is not considered a by-product, and excludes substances that have been intentionally modified or contaminated in order to meet this definition.



### **Transaction certificate template**

Section 1 and 2 of this statement is submitted by the GGL Participant to the applicable Certification Body. Section 3 is signed by the Certification Body to issue a Transaction certificate on behalf of GGL Foundation, once compliance with the applicable GGL Standards is confirmed and verified.

General information	
Name of product	
Previous TCs	[provide unique codes of previous TCs]
Mill of origin (voluntary-based field)	[provide name of the biomass producer]
Product supplied from	[name of company selling product]
Product supplied to	[name of company purchasing product]
GGL Scope	
Date on consignment	
Date onboard on Bill of Lading or transport documents	
Shipment / file number	
Name of ship (if applicable)	
Buyer's Reference Number	
Gross mass in MT (load port)	(Please use commas to indicate the tonnes of biomass: e.g. XXX,XXX)
Net mass in MT (discharge port)	
Country of origin of biomass 1	
010 1 . (00	
GHG data (CO <sub>2</sub> -equivalent, all in g CO2eq/MJ biomass emit	
Emissions for previous part of the	☐ default value
chain:	☐ actual value
Emissions from soil carbon	☐ default value
accumulation and land-use change (e <sub>stock</sub> ):	□ actual value
Emissions for cultivation (e <sub>ec</sub> ):	☐ default value
	☐ actual value
Emissions for processing (e <sub>p</sub> ):	☐ default value
	□ actual value
Emissions for transport (etd):	☐ default value
	□ actual value
Emissions for fuel in use (e <sub>u</sub> ):	☐ default value
	□ actual value
Emission savings from CO <sub>2</sub> capture	Actual value only
and sequestration (e <sub>ccs</sub> )	, totadi valde olliy
Emission savings from CO <sub>2</sub> capture	Actual value only
and alternative use (e <sub>ccr</sub> )	Tiotadi value erily
Total in g CO <sub>2</sub> eq/MJ	☐ default value
3 55254 1115	□ actual value
	☐ combination of disaggregated
	default values and actual values

<sup>&</sup>lt;sup>1</sup> When multiple countries, please state the MT % per country

<sup>&</sup>lt;sup>2</sup> Please note specific instructions apply per *Instruction B.3 – FIT/FIP GHG Emissions*. In addition, specific requirements are in place for the use of default or actual values as per the same instruction.



#### Section 2. Biomass categories information Biomass GGLS1 -GGLS2 -% MT per category % GGLS5 -Japan Originate Chain of FIT/FIP Category Agricul-Forest from tural Custody managem biomass **Endorsed** and source ent category schemes GGLS4 criteria criteria (from Transaccertified GGL certified tion and Instructio **Product** n B.0 certificate FIT/FIP certified Module section B.1 or C.1) 1.Woody GGL-□ yes □ yes □ yes biomass Certified □ no □ no □ no from large FMU's (>500ha) GGL-□ yes □ yes □ yes Controlled □ no □ no □ no 2.Woody GGI -□ yes □ yes □ yes biomass Certified □ no □ no □ no from small FMU's (<500ha) GGL-□ yes □ yes □ yes Controlled □ no □ no □ no GGL-3.Residual □ yes □ yes □ yes biomass Controlled □ no □ no □ no from natural site landscape manage-

□ yes

□ no

□ yes

□ no

□ yes

□ no

□ yes

□ no

ment

4.Agricultural

biomass

5.Biogenic

residues

and waste

GGL-

GGL-

Certified

Certified

□ yes

□ no

□ yes

□ no



# Section 3. To be filled out by the Certification Body (CB)

Unique Code:	
GGL Scope:	
•	rification activities
•	cation and verification activities relevant to this statement.
	salien and remissalien activities referant to time statement.
Ctatament	
Statement	
The Certification	Body has reviewed the documents and information submitted by the GGL
Participant releva	ant to this statement and has issued a Transaction Certificate as per <b>GGLS4</b>
Transaction and I	Product Certificate requirements.
This statement is	s only valid when signed by a GGL accredited Certification Body, and for the
applicable GGL S	cope.
(CB name, surnar	me & signature + stamp)



#### A. Transaction Certificate Guidance

#### **A.1**

This chapter is intended to support the correct use of Section 1 (General and GHG data) of this Guidance which covers **GGLS1** – **Chain of custody criteria**, **GGLS4** – **Transaction and product certificate**, and the required greenhouse gasses (GHG) information as stipulated in **GGL Instruction B.2** – **FIT/FIP GHG Emissions**.

#### **A.2**

Each Participant within the GGL scheme is required to apply for a GGL Transaction Certificate with its Certification Body (CB) for each delivery of GGL-Certified or GGL-Controlled product to ensure the correct application of the all GGL Standards and documents.

#### **A.3**

The GGL Transaction Certificate is based on the transaction statement which is submitted to the Certification body. The Transaction statement is checked for correctness and certified by the CB and, if considered complete, the CB issues a GGL Transaction Certificate on behalf of the GGL Foundation.

#### **A.4**

Figure 1 details how transaction certificates and transaction statements warrant compliance across GGL supply chains and is derived from **GGLS1 – Chain of custody criteria**.

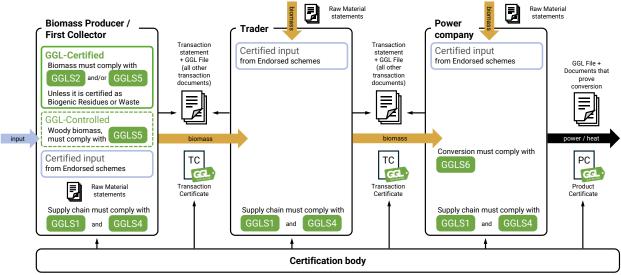


Figure 1. Schematic overview of transaction certificates and transaction statements

#### **A.5**

An essential part of the GGL Scheme is the gathering, calculation and communication of GHG data. The following Annex A includes general guidance on the Transaction Certificate, illustrated by two fictional examples Example 1 and Example 2 to show how the GGL Participant should fill in the general and the GHG data.



### **Annex A. Guidance on the Transaction statement**

This Annex provides guidance and background information for the GHG data on the transaction statement that the Participant submits to its Certification Body.

General information		
Name of product		<pre>{provide unique name of the transacted procuct}}</pre>
Previous TCs		{provide unique codes of previous TC issued}
Mill of origin / Supplier (Voluntar	y-based field)	{provide name of the supplier from which the material originated}
Product supplied from		{name of Participant selling product}
Product supplied to		{name of Participant purchasing product}
GGL Scope		{List the GGL Scope(s) against which the biomass is certified}
Date on consignment		
Date On board on Bill of or transp	ort documents	
Shipment / file number		
Name of ship (if applicable)		
Buyer's Reference Number		
Gross mass in MT or MJ (load po	ort)	
Net mass in MT or MJ (discharg		
Country of origin of biomass		(1)
, ,		
GHG data (CO <sub>2</sub> -equivalent, all in g CO	O2eq/MJ biomass)	
Emissions for previous part of the	(2)	□ default value
chain:		□ actual value
Emissions from soil carbon	(3)	□ default value
accumulation and land-use change (estock):		□ actual value
Emissions for cultivation (e <sub>ec</sub> ):	(4)	□ default value
		□ actual value
Emissions for processing (e <sub>p</sub> ):	(5)	□ default value
		□ actual value
Emissions for transport (etd):	(6)	□ default value
		□ actual value
Emissions for fuel in use (e <sub>u</sub> ):	(7)	□ default value
		□ actual value
Emission savings from CO <sub>2</sub> capture	(8)	Actual value only
and storage (eccs)		-
Emission savings from CO <sub>2</sub> capture	(9)	Actual value only
and replacement (eccr)		
Total in g CO₂eq/MJ	(10)	□ default value
		□ actual value
		☐ combination of disaggregated default values and actual values



The GHG numbers used by the GGL Participant on their part of the supply chain can only be the values reviewed during their annual audit (or an additional remote audit), and as reported by the auditor of the Certification Body (CB). When default values are used, they apply to the whole chain.

- (1) The countries of Point of origin of the biomass are reported in this field. In case the biomass originates in multiple countries, the share (in %) of the total biomass shall be stated per country.
- (2) This concerns the total g CO<sub>2</sub>/MJ biomass for the previous part of the supply chain. It can be used as a double check against the received transaction certificate. When a GHG value is received from a previous GGL Participant in the chain, the total GHG value as stated on the incoming transaction certificate, shall be noted down in the second column. In the third column the applicable box shall be ticked to indicate whether a default value, an actual value, or a combination of actual and disaggregated default values was used by the previous GGL Participant, as indicated on the incoming Transaction certificate.

  If the GGL Participant is the first GGL Participant in the chain, this second column shall be marked as not applicable (N/A) and in the third column none of the boxes shall be ticked.
- (3) The biomass originates from a primary crop in GGL Category 1. Therefore potential land-use change emissions and savings from soil carbon accumulation (e<sub>stock</sub>) must be considered.
- (4) The GHG values for emissions from the extraction or cultivation of raw materials shall be filled in except in cases where the raw material is a residue. Default values may be used when actual values cannot be attained with maximum effort. In the third column, one of the boxes "default value" or "actual value" shall be ticked according to which of these was used. If the raw material is a residue, these emissions are not applicable and shall be noted as such (N/A).
- (5) Emissions from processing shall be noted here. The values will need to correspond to those reviewed during the company's annual audit. Default values may only be used when actual values cannot be attained with maximum effort. In the third column, one of the boxes "default value" or "actual value" shall be ticked according to which of these was used.
- (6) Emissions from transport and distribution shall be calculated as a function of the transport mode and distance traveled. The calculation shall be performed with impact factors in line with the JRC Guidance (Solid and gaseous bioenergy pathways: input values and GHG emissions, Version 2, 2017), and as reviewed during the company's annual audit by the applicable CB. A default value may only be used when an actual value cannot demonstrably be attained with maximum effort. In this case the most conservative value shall be taken, meaning the longest (transport) distance. One of the boxes "default value" or "actual value" shall be ticked according to which of these was used.
  - In case of transporting short rotation coppice, the operator can only use a disaggregated default value for the GHG emissions from that transport if the total distance traveled is known and below 10,000 km, since no default value for further transport distances is available.
- (7) The Emissions for fuel in use shall only be filled in by the end user. Any GGL Participant, other than the end user, shall note this as N/A (Not Applicable).
- (8) Emission savings from carbon capture and storage  $e_{ccs}$  are nil in this case.



- (9) Emission savings from carbon capture and replacement  $e_{ccr}$  are nil in this case.
- (10) The total emission value shall be noted here in g  $CO_2eq/MJ$ . This value is the sum of all previous values except for the 'emissions for previous parts of the chain', i.e. the value follows from  $e_{stock} + e_{ec} + e_p + e_{td} + e_u e_{ccs} e_{ccr}$ .



# Example 1 - Biomass producer

General information	
Name of product	Wood pellets
Previous TCs	<pre>{provide unique codes of previous TC issued}</pre>
Mill of origin (Voluntary-based field)	<pre>{provide name of the biomass producer}</pre>
Product supplied from	<pre>{name of company selling product}</pre>
Product supplied to	<pre>{name of company purchasing product}</pre>
GGL Scope	FIT/FIP – GGL Category 1
Date on consignment	19-10-2018
Date On board on Bill of or transport documents	19-10-2018
Shipment / file number	P103339
Name of ship (if applicable)	Vessel X
Buyer's Reference Number	YVR/IMM001
Gross mass in MT or MJ (load port)	10,455.32 MT
Net mass in MT or MJ (discharge port)	
Country of origin of biomass	Canada (1)

GHG data (CO2-equivalent, all in g CO2eq/MJ biomass)		
Emissions for previous part of the	N/A <b>(2)</b>	□ default value
chain:		□ actual value
Emissions from soil carbon	0 (3)	□ default value
accumulation and land-use change		□ actual value
(e <sub>stock</sub> ):		
Emissions for cultivation (e <sub>ec</sub> ):	1.3 <b>(4)</b>	□ default value
		□ actual value
Emissions for processing (e <sub>p</sub> ):	2.22 <b>(5)</b>	□ default value
		□ actual value
Emissions for transport (etd):	1.51 <b>(6)</b>	□ default value
		□ actual value
Emissions for fuel in use (e <sub>u</sub> ):	N/A <b>(7)</b>	□ default value
		□ actual value
Emission savings from CO <sub>2</sub> capture	N/A <b>(8)</b>	Actual value only
and storage (eccs)		
Emission savings from CO <sub>2</sub> capture	N/A <b>(9)</b>	Actual value only
and replacement (e <sub>ccr</sub> )		
Total in g CO₂eq/MJ	5.03 <b>(10)</b>	□ default value
		□ actual value
		⊠ combination of disaggregated default
		values and actual values



- (1) In this example, the biomass originates from Canada, so this is indicated in the table.
- (2) Since the pellet producer is the first GGL Participant in the chain, the initial calculation shall be done by this pellet producer. This Participant calculates the GHG emissions for the supply chain segment from the Point of Origin until the next Participant in the supply chain. Since there is no GGL Participant upstream in the supply chain, the field "Emissions from previous part of the chain" shall be marked as not applicable (N/A).
- (3) The biomass originates from a primary crop in GGL Category 1. Therefore potential land-use change emissions and savings from soil carbon accumulation (e<sub>stock</sub>) must be considered. However, in this case, it was evidenced that the biomass is sourced from a field or forest that previously (prior to 2008) did *not* have another land use. Therefore e<sub>stock</sub> is zero.
- (4) In this example the pellet mill is using woody biomass derived from final felling at an age of less than 20 years (GGL Category 1). Being the first in the GGL certified supply chain the pellet mill operator needs to do the calculation for the extraction or cultivation of raw materials. For some reason they were unable to do this calculation and demonstrated to the CB that they could not get the proper data with maximum effort. Therefore, the GGL Participant was allowed to use the default value for e<sub>ec</sub> as was verified during the annual audit. As a pellet mill with a wood boiler they should use 1.3 g CO<sub>2</sub>eq/MJ biomass as verified.
- (5) In this example the pellet mill operator has calculated an actual value that was verified during the annual audit. The (actual) CO<sub>2</sub>eq value for Emissions from processing (e<sub>p</sub>) is 2.22 g CO<sub>2</sub>eq/MJ biomass.
- (6) In this example the pellet mill operator has done the calculation of actual values for all raw material transport and transport of the pellets until the harbor storage that was verified during annual audit. The (actual)  $CO_2$ eq value for Emissions from transport and distribution (e<sub>td</sub>) is 1.51 g  $CO_2$ eq/MJ biomass.
- (7) In this example the pellet producer is not the end user and notes N/A.
- (8) Emission savings from carbon capture and storage  $e_{ccs}$  shall be reported by Biomass producers when these are verified.
- (9) Emission savings from carbon capture and replacement  $e_{ccr}$  shall be reported by Biomass producers when these are verified.
- (10) In this example the Total Emissions value (in g  $CO_2$ eq/MJ biomass) up until this part of the chain is 5.03 g  $CO_2$ eq/MJ biomass which follows from the sum 1.3 + 2.22 + 1.51.



# Example 2 - Trader

General information	
Name of product	Wood pellets
Previous TCs	{provide unique codes of previous TC issued}
Mill of origin (Voluntary-based field)	<pre>{provide name of the biomass producer}</pre>
Product supplied from	<pre>{name of company selling product}</pre>
Product supplied to	<pre>{name of company purchasing product}</pre>
GGL Scope	FIT/FIP – GGL Category 1
Date on consignment	19-10-2018
Date On board on Bill of or transport documents	19-10-2018
Shipment / file number	P103339
Name of ship (if applicable)	Vessel X
Buyer's Reference Number	YVR/IMM001
Gross mass in MT (load port)	10455.32 mt
Net mass in MT (discharge port)	
Country of origin of biomass	Canada (1)

GHG data (CO2-equivalent, all in g CO2eq/MJ biomass)		
Emissions for previous part of the	5.03 (2)	□ default value
chain:		□ actual value
Emissions from soil carbon	0 (3)	□ default value
accumulation and land-use change (e <sub>i</sub> ):		□ actual value
Emissions for cultivation (e <sub>ec</sub> ):	1.3 <b>(4)</b>	⊠ default value
		□ actual value
Emissions for processing (e <sub>p</sub> ):	2.22 <b>(5)</b>	□ default value
		□ actual value
Emissions for transport (etd):	1.51 <b>+ 4.89 (6)</b>	□ default value
		⊠ actual value
Emissions for fuel in use (e <sub>u</sub> ):	N/A <b>(7)</b>	□ default value
		□ actual value
Emission savings from $CO_2$ capture and sequestration ( $e_{ccs}$ )	N/A <b>(8)</b>	Actual value only
Emission savings from $CO_2$ capture and alternative use $(e_{ccr})$	N/A <b>(9)</b>	Actual value only
Total in g CO₂eq/MJ	9.92 (10)	□ default value
		□ actual value
		⊠ combination of disaggregated default
		values and actual values



- (1) In this example the biomass originates from Canada, as indicated in the table.
- (2) In this example, the GGL Participant received the pellets from a previous GGL Participant (the pellet mill operator). Therefore, the GGL Participant notes down the Total Emissions value in g CO<sub>2</sub>-eq/MJ, as written on the transaction certificate of the pellet mill operator, which constitutes 5.03 g CO<sub>2</sub>/MJ biomass. The Total Emissions are therefore a mix of default and actual emission values.
- (3) The biomass originates from a primary crop in GGL Category 1. Therefore potential land-use change emissions and savings from soil carbon accumulation (e<sub>stock</sub>) must be considered. However, in this case, it was evidenced that the biomass is sourced from a field or forest that previously (prior to 2008) did *not* have another land use. Therefore e<sub>stock</sub> remains zero.
- (4) In this example the trader copies the default value for e<sub>ec</sub> (for trunk wood for a pellet mill with wood boiler) as was written on the Transaction certificate from the previous Participant: 1.3 g CO<sub>2ea</sub>/MJ biomass.
- (5) In this example the pellet trader copied the value for processing (e<sub>p</sub>) as it was included on the Transaction certificate from the previous Participant: 2.22 g CO<sub>2</sub>eg/MJ biomass.
- (6) In this example the trader first copies the value for transport and distribution (etd) for the previous part of the of the chain as was written on the Transaction certificate from the previous Participant: 1.51 g CO<sub>2</sub>eq/MJ biomass, but the trader also transported the material across the ocean, therefore they also note "+ 4.89" g CO<sub>2</sub>eq/MJ biomass which is the actual value calculated for the transport of the pellets from the harbor storage to the ARAG- range (Amsterdam, Rotterdam, Antwerpen and Gent harbors).
- (7) In this example the pellet trader is not the end user and notes N/A.
- (8) Emission savings from carbon capture and storage  $e_{ccs}$  are not applicable for Traders.
- (9) Emission savings from carbon capture and replacement e<sub>ccr</sub> are not applicable for Traders.
- (10) In this example the Total Emissions value up until this part of the chain is 9.92 g  $CO_2$ eq/MJ biomass which equals 1.3 + 2.22 + 1.51 + 4.89. This also equals the Emissions value from previous parts of the chain plus the Emissions from transport and distribution which took place in this part of the chain (9.92 = 5.03 + 4.89).