

SFC-INT-001 v03: INTERPRETATIONS PUBLIC SUMMARY



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About Smart Freight Centre

Smart Freight Centre (SFC) is a globally active non-profit organization for climate action in the freight sector. Our goal is to mobilize the global logistics ecosystem, in particular our members and partners, in tracking and reducing its greenhouse gas emissions. We accelerate the reduction of logistics emissions to achieve a zero-emission global logistics sector by 2050 or earlier, consistent with 1.5° pathways.
www.smartfreightcentre.org

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Contact:

Smart Freight Centre
Keizersgracht 572, 1017 EM,
Amsterdam, Netherlands
Tel office: +31 6 4695 4405
www.smartfreightcentre.org
assurance@smartfreightcentre.org

Table of contents

Introduction	4
1. GLEC Framework as verification criteria; GLEC Framework transition period	5
2. Negative Carbon Intensity	6
3. MBM vintage timelines	8
4. Vintage MBM	11
5. GCD for airfreight	13
6. NVOCC	13
7. SAF “Blend Wall” and Book and Claim	14
8. Additionality integrity measure and EU-ETS—current SFC statements	15
9. Recording a LETS on Behalf of an Upstream Partner	18
10. Market-based Inputs into MBM products (Guarantees of Origin (GoO), Renewable Energy Credits (REC); Carbon Capture and Storage (CCS))	20
11. Multinational Road Carrier - Eligibility of Cross-Border Attribution and Unbundling of Solution’s Emissions Profile	21
12. Eligibility of Bio-LNG chain-of-custody approaches and selection of GHG emissions factor	23
13. BEV and renewable electricity in market-based measures	25

Version history

1	26/2/2025	First edition: interpretations 1, 2, 3 and 4.
2	14/7/2025	Second edition: interpretations 5 and 6 added.
3	17/12/2025	Third edition: interpretations 7-13 added.

Introduction

Smart Freight Centre (SFC) has documented its interpretation and analysis services, which are provided to Members, Approved Validation and Verification Bodies (VVBs) and Listed Emissions Reporters (ERs) only. It is described in the procedure ASU-PRO-009-2 Interpretation Process, which is available in our [online library](#).

We have defined “interpretation” as a formal normative clarification provided by SFC related to requirements included in documents of the SFC normative structure. The SFC normative structure is the collection of SFC Specifications, Manuals and Procedures which are mandatory for Approved VVBs and Listed ERs.

Interpretations produced by SFC are usually relevant to other organizations and cases besides the ones mentioned in the request. SFC has committed to sharing its answers to interpretation requests publicly to uphold its commitments to transparency, impartiality and competence as a Scheme Owner. Thus, the interpretation cases we receive are regularly reviewed to ensure they remain anonymous and contain sufficient hypothetical examples to be easily understood by all users. Below is a summary of the cases we have replied to so far. We have decided to retain the wording employed by the inquirer, *even when not in line with what we use*, but this does not imply we endorse said wording.

Interpretations

1. GLEC Framework as verification criteria; GLEC Framework transition period

Topic	1. Use of the GLEC Framework as verification criteria. 2. Transition period between different versions of the GLEC Framework.
Keywords	Verification service, transition period, verification criteria, guidance document, normative document
Applicable documents	ISO 14083:2023 GLEC Framework versions 2.0, 3.0 and 3.1 ASU-PRO-002-2 Validation and Verification Body Manual – ISO 14083, clause 4.6.
Publication date, effective date	26/02/2025, 26/02/2025
Question #1	In October 2024, an Emissions Reporter requested a Validation and Verification Body (VVB) to verify its GHG Emissions Report for Financial Year (FY) 2023 (July2022-June2023) and FY 2024 (July2023-June2024). Verification should be carried out against ISO 14083:2023, but the Emissions Reporter is not yet ready to comply with it for the financial years in question. Can this engagement be carried out using the GLEC Framework v2.0 published by SFC instead?
Answer #1	SFC considers it is acceptable for VVBs to use the GLEC Framework as verification criteria for verification engagements carried out on GHG Emissions reports relating to data up to and including March 2025, i.e. for up to two years after the first publication of ISO 14083, conditional on the VVB in question informing SFC of each specific case it is used and specifying the version of the GLEC Framework used in its Verification Statement.
Question #2	In October 2024, an Emissions Reporter requested a Validation and Verification Body (VVB) to verify its GHG Emissions Report for FY2023 (July2022-June2023) and FY2024 (July2023-June2024) using ISO 14083 as the verification criteria, under SFC's Conformity Assessment Scheme (CAS) Scope ISO 14083. ISO 14083 refers explicitly to guidance documents that should be followed when applying the standard. An example of a guidance document is the GLEC Framework, which Reporters are expected to follow or explain to their VVB why they have not. What transition periods apply for different versions of the GLEC Framework? What version of the GLEC Framework should be used in the specific examples above?
Answer #2	Adoption of new versions of guidance documents that are relevant for the SFC CAS should occur in the reporting period following the document's publication, but at the latest shall occur in the subsequent reporting period (in this case, the justification shall be disclosed in the Emissions Report). Adoptions of subversions shall occur in the reporting period following the document's publication.

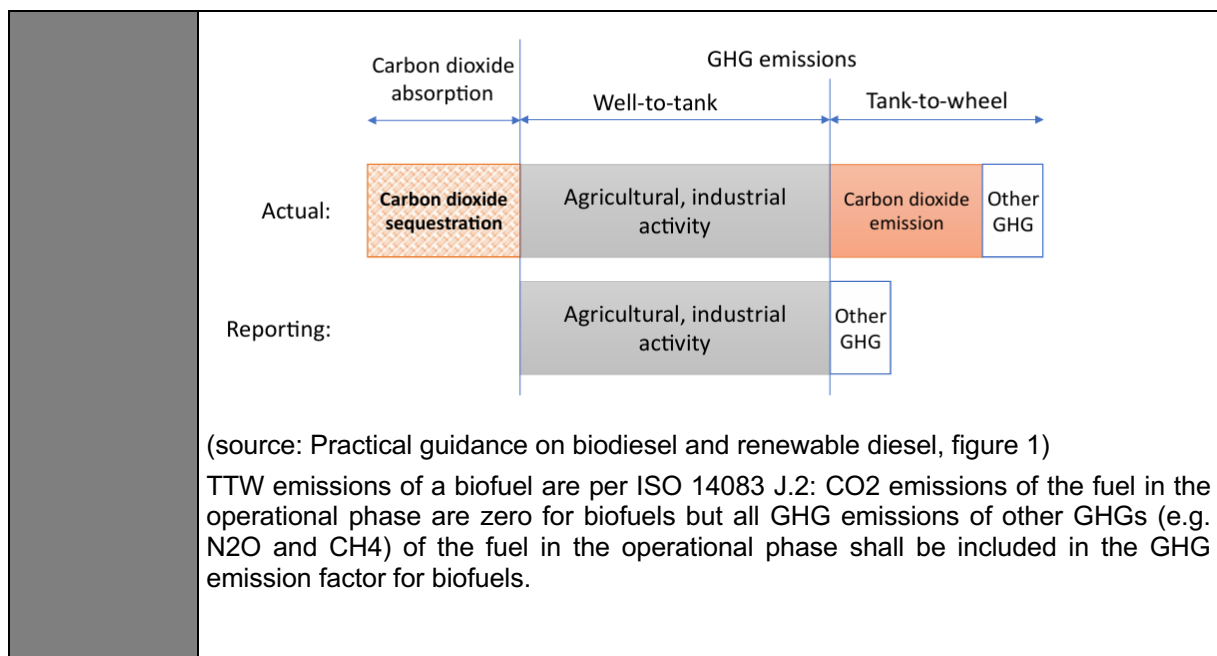
SFC notes to support response for Answer #1	This issue relates to the use of SFC guidance documents in verification services . The GLEC Framework is a guidance document and ISO 14083 is a normative document. Once there are normative documents on a topic, a VVB should not be verifying against a guidance document like the GLEC Framework. However, considering that: a) ISO 14083 was published in March 2023,
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	b) Before this date, the GLEC Framework was what most resembled a normative document for the logistics sector, and was used as the basis for ISO 14083, c) It is common practice to allow a 2-year transition period between versions of standards, d) Copyright to the GLEC Framework is detained by SFC and as mentioned in <i>SFC-PRO-002-2 v01 Use of SFC documents by third parties</i> (available on the SFC website), use of SFC guidance documents to carry out second or third-party conformity assessment audits/ verifications requires our written permission. Example: It would be acceptable for the GLEC Framework (in general, with no specific date specified) to be mentioned as verification criteria for an Emissions Report for FY January to December 2025, or for FY July 2024 to June 2025; but not for FY Jan to Dec 2026, or FY July 25 to June 26.
SFC notes to support response for Answer #2	This issue relates to the use of guidance documents by Emissions Reporters which are following ISO 14083, as part of the SFC Conformity Assessment Scheme (SFC CAS). Considering that: a) As mentioned in <i>ASU-PRO-002-2 Validation and Verification Body Manual – ISO 14083</i>, clause 4.6. “The required scheme documents are complemented by guidance documents, which provide additional information to assist with the interpretation of standards - these are mentioned explicitly in ISO 14083 and/or published on the SFC website. An example of a guidance document is the GLEC Framework. Reporters are expected to follow the recognized guidance or explain to their VVB why they have not and/or that the guidance they have followed is more robust.” b) However, there are no SFC policies or documented positions covering the transition period between different versions of the GLEC Framework. c) Consistency is one of the key principles of GHG Emissions accounting. According to this, reporters should not be forced to update their underlying methodological basis in a running year and should be given time to adapt. d) Adoption of subversions should be faster, given that only minor changes are involved. e) The relevant time period is between the publication of the version/ subversion and the start of the next reporting cycle for the specific case of each Reporter. Considering that GLEC Framework V3.0 was published in September 2023 and V3.1 in October 2024: Example 1: The Reporter was using GLEC Framework V2.0 and their reporting period is 1st July to 30th June. This Reporter should apply V3.0 for FY 24-25, but at the latest option shall apply V3.0 for FY 25-26. If V3.0 is only applied for FY 25-26, then the justification shall be disclosed in the Emissions Report. Example 2: The Reporter was using GLEC Framework V2.0 and their reporting period is the calendar year. This Reporter should apply V3.0 for FY 2024, and at the latest for FY 2025. If V3.0 is only applied for FY 2025, then the justification shall be disclosed in the Emissions Report. Example 3: The Reporter was using GLEC Framework V3.0 and their reporting period is the calendar year. This Reporter shall apply V3.1 for FY 2025.

2. Negative Carbon Intensity

Topic	Use of negative Carbon Intensity for “insets” calculation
Keywords	Book and claim, Market Based Measures, carbon intensity agricultural impact
Applicable documents	MBM Framework version 1.0 and GLEC Framework version 3.1 (page 78)
Publication	26/02/2025, 26/02/2025

date, effective date	
Question	We have a query regarding the use of negative Carbon Intensity (CI) values in the generation of insets. We've noticed that some biofuels declare a negative CI on the POS, and this has come up with several of our clients. What is the stance of SFC's Specification on using negative CI values when calculating emissions reductions? What guidance can you provide?
Proposed answer	Our usual recommendation to clients is to cap the CI at 0, as using a negative value could imply that the biofuel removes CO₂ from the atmosphere. While this might be accurate in some cases, it does not always guarantee long-term removal. Having an overall negative emission factor can be inappropriate because it can appear to create benefits from using more biofuel, which cannot be right. In addition, ISCC has also updated their system documents to limit the savings from soil carbon accumulation via improved agricultural management (esca). We strongly recommend that the CI for BioLNG be limited to zero, similar to the approach taken by SBTi in similar circumstances in their aviation guidance. This will limit the production emissions to be the same as the combustion emissions, i.e. set the life-cycle emission factor to be zero.
SFC Answer	This answer and guidance are applicable to the task of building a transportation emissions inventory. For an inventory accounting approach according to ISO 14083 and GLEC Framework, the emission reporter should cap negative CI emission factor input data to zero and avoid reporting negative emissions for the reasons you note. The generic assumption for 'avoided' emissions would be that the emission reporter who owns and controls the material to produce Bio-based or Renewable-based Energy Carriers would be the 'benefactor' of a lower emission profile for its operations and inventory (following their organization and system boundary decisions). However, this is not explicitly required by the above-mentioned normative and guidance documents, respectively, so a reporter could potentially apply negative CI factors without it leading to a nonconformity. If a reporter does work with negative CI factors, we consider this would require robust documentation from the reporter. We also recommend that the verifier carefully evaluate possible consistency issues and downstream effects. The GLEC Framework recognizes that "GHG emission factors for biofuels can vary considerably according to feedstock mix and process. Certified waste stream feedstocks can lead to low or even negative emission factors under certain circumstances; emission factors need to be carefully checked in such circumstances to avoid unintended consequences and overstatement of emission reduction benefits." (cf. GLEC Framework v3.1, page 78). The Emission Factor shall be expressed in WTW (GLEC Framework v3.1 P.57), with WTT and TTW as optional supplementary information. We further recognize that there are schemes which do consider negative CI factors as valid due to the nature of their accounting approach. Under Low Carbon Fuel Standard (LCFS, applicable in US), it does consider the possibility for WTT factor to be in negative value or zero, due to the difference of its definition in LCA compared to other standards. Use of such an emission factor underneath the LCFS scheme should be considered in the larger context of an inventory, knowing that its use implies that greater fuel usage equals greater emission "savings", and that, depending on the reporting organization, this negative CI should be utilized for a specific, regional and regulatory purpose. In GLEC and ISO 14083 (and consistent with the GHG protocol) biofuel emission factors are not considered to be negative or zero. Carbon sequestration happens during the cultivation of biomass, whether from agriculture or natural growth in forests, is assumed to effectively cancel out carbon emitted from fuel combustion. Thus, fuel lifecycle emissions are only produced from non-carbon emissions during combustion and emissions from other agricultural and industrial activity along the value chain. See below figure for the illustration of this concept.



3. MBM vintage timelines

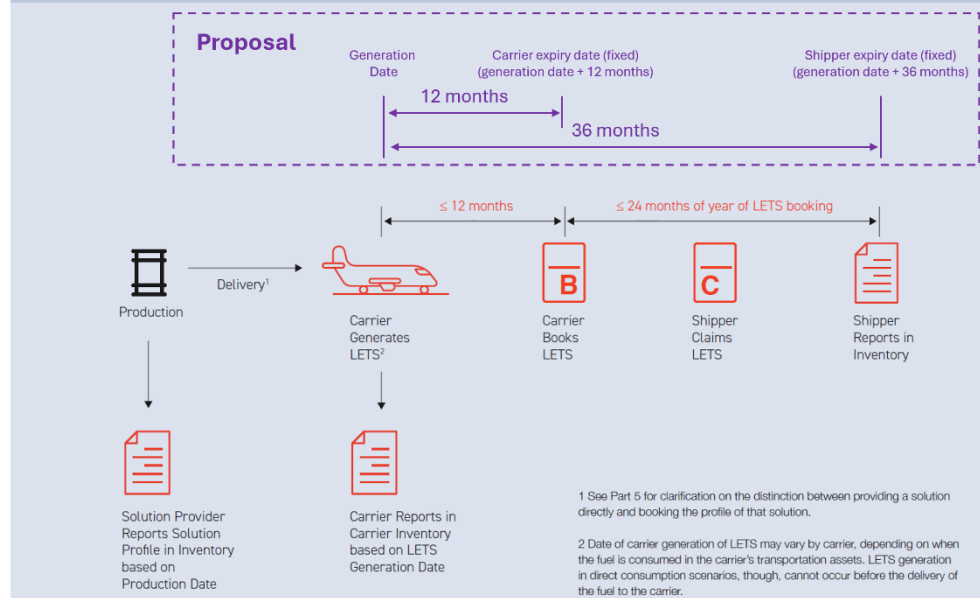
Topic	MBM vintage timelines
Keywords	MBM, Book & Claim, Carbon Insetting, Vintage, Retirement, Expiration Date, Certificates
Applicable documents	MBM Framework version 1.0, MBM Specification version 1.0
Publication date, effective date	26/02/2025, 26/02/2025
Question	The current vintage model in the MBM framework is a “dynamic” model, in which events along the vintage timeline affect and shift the expiration date at the very end. E.g., the act of booking a LETS after it has been generated. The expiry date of LETS claimed by a cargo owner depend on the timing of booking/claiming of upstream supply chain actors (carrier/LSP). Some of our observations regarding the current dynamic model: • Leads to “strategic procrastination”, delays of booking a LES/LETS to maximize the time till expiration. • The unpredictability of the expiration date is difficult to explain and understand for parties that want to get involved in carbon insetting. • Dynamic vintage model leads to uncertainty for both issuers and buyers of LES/LETS for the expiration date. Would the Smart Freight Centre agree if we interpret the vintage model for our customers in the following way?
Proposed answer	We propose the following: • To stay within the maximum total time that the SFC has set. • We determine the latest vintage date for the shipowner at the moment of generation (see examples; booking of LES and generation of LETS). • Because we set the vintage date at the moment of generation, we accept that the cargo owner loses up to a maximum of 12 months in a claim and rebook scenario (see example 4). Until we find a practical solution, we use a conservative approach. The key being that the expiration date of a LETS is known the moment that it is issued without changing too much of the current vintage model. After a LES is booked or a LETS is generated (generation date), the shipper has 36 months to claim the LETS. This does not change the existing vintage restrictions on

the carrier to claim a solution and to book a LETS. This still needs to be done within 12 months, however after these events in the vintage timeline the end expiration date is immediately determined to be 36 months after generation, regardless of the exact date of booking by the carrier.

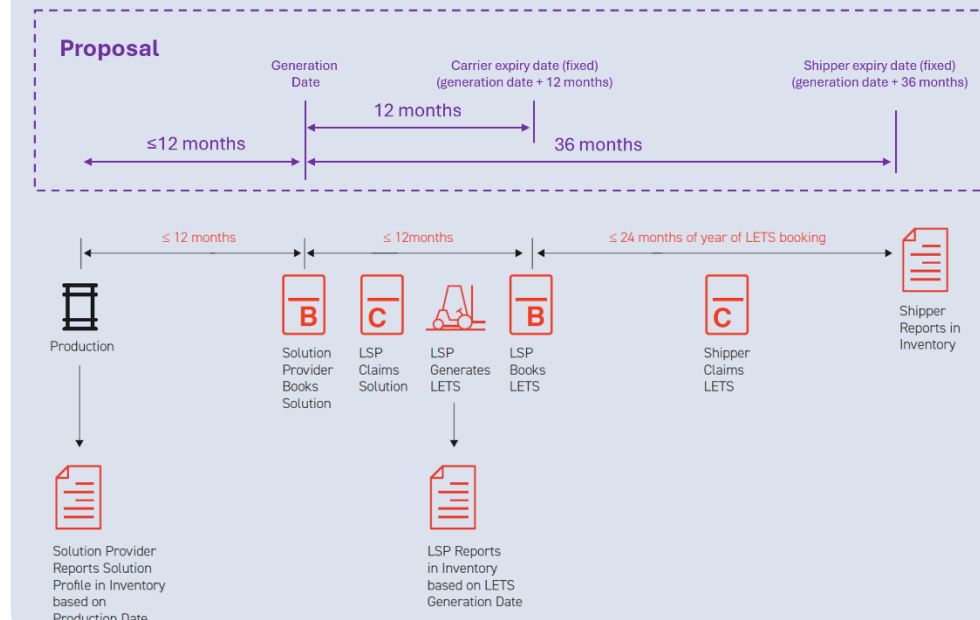
The advantages of this interpretation are a simplified vintage model, understandable and predictable vintage for parties looking to get into carbon insetting.

Below are illustrations for all the MBM vintage examples including the new vintage timelines of our proposed interpretation of the MBM framework.

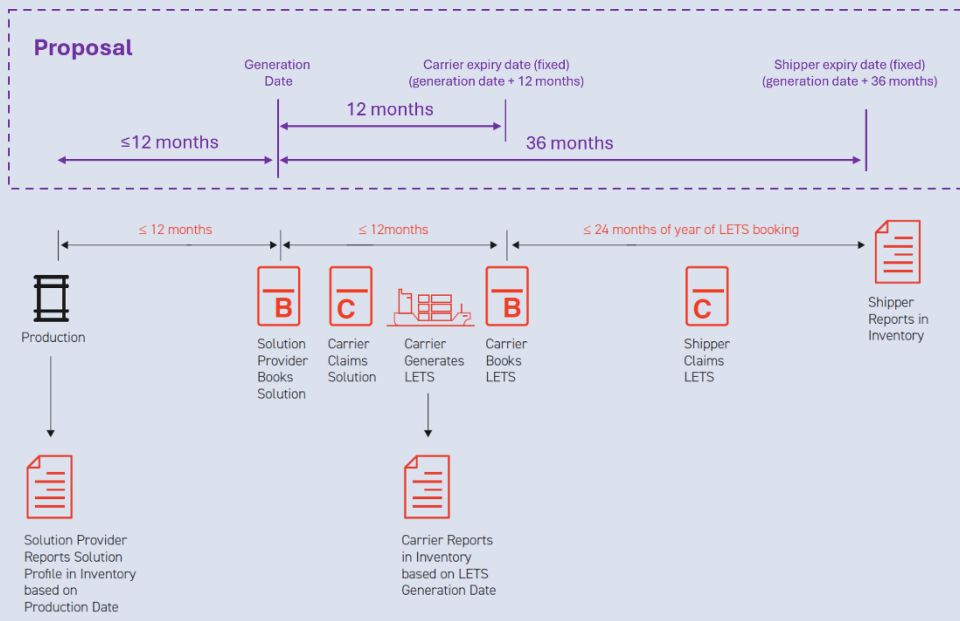
Example 1: Solution Provider Provides Solution Directly to Carrier



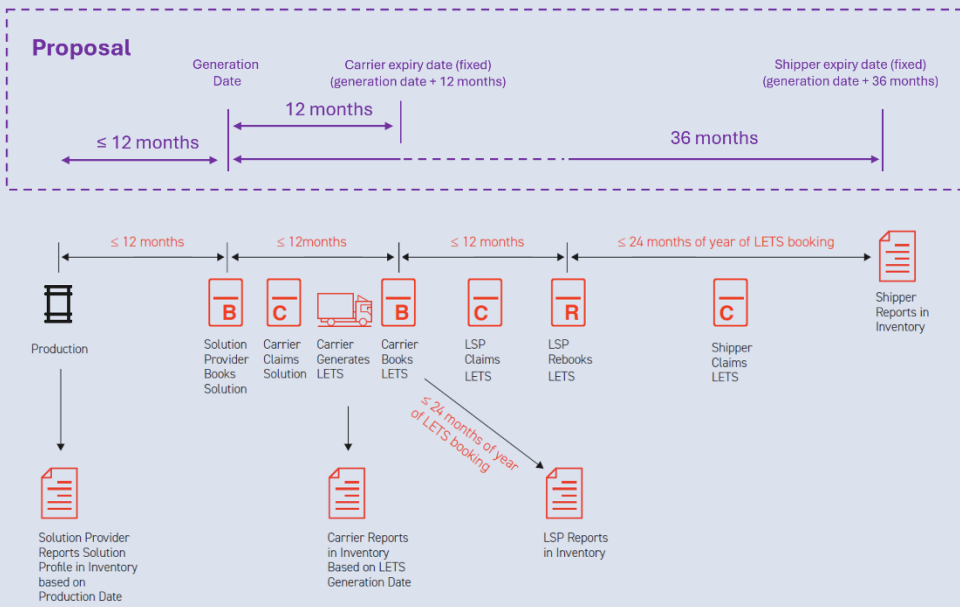
Example 2: Solution Provider Books Solution Profile for Claiming by LSP



Example 3: Solution Provider Books Solution Profile for Claiming by Carrier (Basic)



Example 4: Solution Provider Books Solution Profile for Claiming by Carrier (Expanded)



SFC Answer

Thank you for the inquiry and suggestion of a new “interpretation” of the vintage timeline. The short answer is that we must stick to the original vintages which keep the tie to the physical activities, products, and services within the transportation value chain/chain of custody.

Although the transportation sector is, indeed, dynamic, we wouldn’t use the term to define the MBM Framework’s vintage model. An alternative timeframe could apply better to a “tradeable” asset, but we’re working with emission profiles and analogues of a ‘physical’ greenhouse gas emission inventory approach, and the intention is to keep the tie to the physical value chain of the products and services intact. One reminder that the term LETS is also used to define a “Low Emission Transportation Service” when there is no alternate chain of custody—or book and claim-approach—when it’s a purely ‘physical’ approach to accounting. A second reminder that Solution Providers produce Solutions and don’t generate LETS.

We observe that vintages are better understood when an organization considers what they are seeking and, for example, note that we do see some confusion when a Shipper is seeking a low emission transportation service (“anything other than moving

	my good with fossil!”) but is offered a quantity of fuel. This can confuse the production/generation terms and timelines. When a user is looking to accept (claim) a low emission solution (“Solution” in the MBM Framework), the vintage requirements are related to that production. When an organization seeks a lower emission service (i.e., seek to claim a LETS, which is a specific service that is done at a point in time and space, the vintage is related to where and when the low emission activity occurred or virtually occurred). This is similarly understandable from the perspective of the booking party. I generate the LETS which is the thing that I did, and which occurred in my transportation value chain, and vintage is measured from this generation—this point in time and space. The rebooking keeps the activity of a transportation service on the part of an LSP front and center. Two of the primary vintage considerations are the 12- and 24-month expiration periods, which are inextricably tied to specific events: the production of a fuel and/or the generation of the transportation activity. While multiple documents may serve to provide the certainty of the fuel production, these events are moments in time in the chain of custody and keep the physical transportation-related activities front and center.
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4. Vintage MBM

Topic	Vintage MBM
Keywords	LETS Generation date, LETS booking date, vintage, 'negative' vintage constraints
Applicable documents	MBM Framework, MBM Specification
Publication date, effective date	26/02/2025, 26/02/2025
Background	I have a detailed question about the 'vintage' constraints for an LSP Claim-and-Rebook of a direct LETS. MBM Framework specifies a period after the LETS generation during which booking & claiming is performed. In Section 9 it is said for LSP's Claim and Rebook “LETS profile re-booked within 12 months of the booking LSP's claim of the LETS”. Does this imply that B&C can only take place after LETS generation? What is the time limit for a 'negative' vintage constraint? Basically, the issue is about risk & cost optimization and the availability of LETS. However, the temporal integrity of the inseting measure is concerned (cf. the discussion on carbon credits based on carbon sequestration by trees in advance). I think the issue depends very much on mode and the actual amount of fuel purchased by a carrier. In other words, this consideration is rather less relevant for Air and Marine - although I also know Air B&C programs that cover up to 6 months in advance (and up to 36 months for vintage LETS). I have a scenario where LETS are ordered for period B at the end of period A based on the transport performance in period A. The LETS generated by carrier in period B are subsequently allocated to the shipments in period A. This allocation however only happens, once the LETS have been generated and booked. So, there is no allocation/booking/claiming of LETS that do not exist. Then a report is created that covers several sub-periods (A, B, ..., n) in period C & period C is a sub-period of one year. In general, the inseting approach applies, i.e. the number of LETS allocated does not exceed transport services in the respective modality inventory. The shipments are reported as a total rather than individually – However, LETS allocation is done on shipment level.
Question #1	Basically, the chronological sequence is: Date 1: Shipment < Date 2: LETS order by LSP < Date 3: LETS generation by carrier < Date 4: allocation/booking of LETS to shipment by LSP < Date 5: Claiming of LETS by Shipper. The detailed questions are: a) Is MBM section 9 - quoted above - to be interpreted as 'a shipment can only be booked with LETS under the condition shipment date >= LETS generation date'?

SFC Answer #1	We don't have a specific term to describe this specific commercial practice via an "order", but we understand this as a sort of advanced "offtake agreement" or a sort of "pre-allocation" of the LETS—a commitment that the LETS will be allocated in the future. These are commercial terms that we don't have a comment on. We do recognize that offtake agreements and other market signals aid the Solution Provider and Carriers' planning and future operations—one of multiple tools used by partner organizations to increase alignment (i.e., Carrier & Shipper) and key to demonstrating a market signal and credible future uptake of low emission solutions. The need for specific attributes (see minimum attributes of a LETS in p18/19 of the MBM Framework and 6.1.3/6.2 of the MBM Specification), whose need for constituent information, dictates that a LETS cannot be generated until the transportation activity has taken place or the Solution has been produced. The situation may arise where an organization wishes to apply a LETS to their traditional transportation which occurred before the generation of the LETS by a Carrier or LSP. We will refer to this as a "reporting year allocation", where the generation, booking, claiming and allocation of this shall occur before the end of the reporting calendar year (or the end of the organization's standard, non-calendar reporting cycle) where there is no more than 12 months difference between the production or generation of the applicable profile and the transportation to which the LSP, for example, is applying the LETS or Solution profile.
Question #2	b) If the first question does not apply, is it acceptable to: i. Re-book LETS ii. claim LETS in advance of LETS generation?
SFC Answer #2	Rebooking and or claiming prior to the actual generation of LETS are both not eligible under SFC MBM.
Question #3	c) If (b) applies - How should information on the LETS be provided? Booking LETS includes an information exchange process. The carrier provides information such as generation date, method, host country etc. with the booking. If the booking is made in advance, relevant information is only available as an 'estimate'. Which 'estimate' is acceptable? i. Default LETS (specified in MBM framework?!)? ii. Ordered LETS?
SFC Answer #3	Rebooking and or claiming prior to the actual generation of LETS are both not eligible under SFC MBM.
Question #4	(d) if b) applies - What is the maximum 'negative' vintage for booking/claiming in advance? i. 1 day ii. 1 week iii. 1 month iv. 3 months v. 6 months vi. 12 months vii. Other
SFC Answer #4	Rebooking and or claiming prior to the actual generation of LETS are both not eligible under SFC MBM.
Question #5	e) If a) & b) does not apply - What is the maximum 'negative' vintage for time lag between shipment date and LETS generation date? i. 1 day ii. 1 week iii. 1 month iv. 3 months v. 6 months vi. 12 months vii. Other

SFC Answer #5	The situation may arise where an organization wishes to apply a LETS to their traditional transportation which occurred before the generation of the LETS by a Carrier or LSP. In such cases, generation, booking and claiming shall occur before the end of the reporting calendar year (or the end of the organization's standard, non-calendar reporting cycle, if applicable) with no more than 12 months a difference between the production or generation of the applicable profile and the transportation to which the Shipper, for example, is applying the LETS or Solution profile.
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5. GCD for airfreight

Topic	Great Circle Distance for air freight
Keywords	Great Circle Distance (GCD), air freight
Applicable documents	ISO 14083 Annex A, GLEC SFC-SPEC-001 section 6.2
Publication date, effective date	14/07/2025, 14/07/2025
Background	Basically, there are two approaches for GCD calculation. On the one hand, Haversine's formula based on the assumption of a spherical earth. On the other hand, the assumption of an ellipsoid earth according to World Geodetic System 1984 (WGS-84) model usually implemented with Vincenty's formula. ICAO require the use of WGS-84 based location indicators. Monitoring and reporting regulation (EU) 2018/2066 (EU ETS & UK ETS) and ICAO Annex 16 Volume IV (CORSIA) require the use of WGS-84 based distance calculation. EUROCONTROL small emitters tool and ICAO CORSIA CERT tool therefore utilizes WGS-84 based fuel-use figures. A mixture of the two assumptions mentioned above (spherical/ellipsoid) therefore leads to systematically incorrect results. For example, if a distance between two WGS-84 locations is calculated using the haversine formula (error 1: first mixing of two coordinate systems or their basic assumptions) and then using this incorrect distance and a WGS-84-based fuel-use statistic to calculate fuel consumption.
Question	Is it ok to use different earth models for emission modelling? E.g.: • ellipsoid earth model WGS-84 for geographical coordinates of a location • spherical earth model for distance calculation between two locations • ellipsoid/spherical distance for WGS-84 based fuel-use calculation
SFC Answer	It is acceptable to use different methodologies for measuring Great Circle Distance (GCD) in emission models, but the choice depends on the purpose. If primary fuel consumption data is available, emissions are calculated directly from energy use, making distance relevant only for allocation. In this case, the choice of GCD method (Haversine or WGS-84) affects emission intensity but not total emissions. Both are ok, we recommend indicating the methodology used. However, if fuel consumption is modeled using distance traveled, the actual flown distance—including deviations—should be used. Since WGS-84 provides the shortest path, it may not fully capture real-world flight patterns. A deviation adjustment factor (e.g., 95 km) can be applied where actual distances are unavailable. In this case for both fuel modeling and allocation parameter the same method should be applied. For ICAO-based modeling, fuel consumption should use actual distance, while transport activity calculations should use a clearly defined GCD method.

6. NVOCC

Topic	Non-Vessel Operating Common Carrier (NVOCC)
Keywords	Carrier, LSP, Non-Vessel Operating Common Carrier

Applicable documents	SFC-SPEC-001 clause 6.3 (mentioned in the original query) GHG Protocol Corporate Accounting and Reporting Standard- chapters 3, 4 and 9 ISO 14083 clauses 3.1.32 (transport service organizer); 3.1.33 (transport service user)
Publication date, effective date	14/07/2025, 14/07/2025
Background	Maritime transport recognizes the non-vessel operating common carrier (NVOCC). Under commercial law, the NVOCC is a carrier. However, as the NVOCC does not operate its own vessels, it can also be regarded as an LSP.
Question	Is it correct to consider a NVOCC as carrier for MBM application?
SFC Answer	It depends. The leading requirements are those in underlying GHG accounting, as informed by the Greenhouse Gas Protocol (GHGP)'s Corporate Accounting and Reporting Standard and ISO 14083, prior to application of the MBM Specification. The attribution and reporting of the low emission profile from a LETS in one's corporate GHG emissions inventory must be done in accordance with the organizational boundaries and reporting scopes as stipulated in the GHG Protocol's Corporate Accounting and Reporting Standard and as informed by ISO 14083. Section 3.19 of the MBM Specification v1.0 (SFC-SPEC-001) defines a "Logistics Service Provider (LSP: An organization that secures and facilitates transportation activity for shippers." Furthermore, the notes detail nuances to the LSP's operations and that they may sometimes operate transportation assets, whereupon they are acting as a carrier. The ISO 14083 distinguishes between a "transport service operator" and a "transport service user". These definitions and logic underscore that the organization type underneath the MBM Framework and MBM Specification are dependent on the type of work they are doing in the transportation value chain. As such, the attribution and reporting of the low emission profile from a LETS in one's corporate GHG emissions inventory must be done in accordance with the organizational boundaries and reporting scopes as stipulated in the GHG Protocol's Corporate Accounting and Reporting Standard and following the standard for emissions accounting in transportation, ISO 14083. In that sense, one must ask how the emissions profile ownership and reporting elements are allocated in the case of an NVOCC following a business-as-usual scenario independent of any market-based measures. Following these same parameters, since a book and claim chain of custody system is merely applying the low-emissions profile attributes of a LETS to the shipper's inventory as if they had conducted that LETS, it shouldn't change the ownership of the emission profile or contractual agreements already in place for GHG reporting and accounting for the related transport operation. (See Book and Claim Community's "Principles & Best Practices" publication regarding enablement of multiple claims: www.bookandclaimcommunity.org/principlesandbestpractices). In summary, following SFC-SPEC-001 clause 6.3.1. one must refer to the original ownership rules used for reporting in the case of an NVOCC, using underlying GHGP- and ISO 14083-based accounting and reporting convention, first, to determine which book and claim model to apply under clause 6.3a as well as clause 6.3.3.

7. SAF "Blend Wall" and Book and Claim

Topic	Using Book & Claim to achieve a 100% SAF flight beyond the current blend wall
Keywords	SAF; blend wall; reporting solutions; Book and claim; Accounting and Reporting
Applicable SFC normative document and relevant clauses	SFC MBM Framework MBM Specification (3.2, definition of a "Low Emissions Solution (Solution); 3.8, "LETS Generation Date" language)
Background	The "blend wall" for Sustainable Aviation Fuel (SAF) refers to the technical and logistical limit on how much SAF can be mixed with conventional jet

	fuel (Jet A/A-1) before needing significant aircraft engine and airport infrastructure upgrades, typically capped around 10% to 50% depending on the SAF type.
Date of this version	17/12/2025

Question #1	While unable to physically use 100% SAF in commercial airplanes, can we use book and claim to “claim” we’ve fuelled 100% SAF onboard? I’m trying to see if “Solution” is defined as something that physically can actually occur in an existing airplane or if this theoretical situation can be allowed. - “3.2 Low Emissions Solution (Solution): A product or material provided to enable the generation of a LETS.” - In “3.8 LETS Generation Date”, it says “...as if the Solution had been used in their owned-operated fleet” Does 3.8 limit the use of 100% SAF?
Proposed Answer #1	Yes, provided I don’t overapply more SAF than what I could actually use in that plane/flight (if it were theoretically able to be 100% SAF – adjusting for energy density according to standard fossil jet fuel)
SFC Answer #1	There is no definition of a solution that precludes the indirect use of more SAF than can be physically uplifted under current regulations and motor manufacturer specifications. We want to enable the greater indirect demand for SAF, even if it’s not uplifted into that exact plane. This is rooted in the idea that, in any mode, a carrier would be able to use a book and claim chain of custody to generate an indirect LETS and report a market-based transportation service offering with a different input fuel composition than physically present in their tank and motor. This is also possible via a direct LETS with disproportionately-allocated fuel via mass balance. Other references: - Please see Solution sustainability profile corroboration (MBM Specification, 6.1) - 6.3 for transparency on the nature of the LETS (ie, physically tied and/or the related chain of custody) However, the user needs to exercise caution, not to allocate energetically more SAF than conventional fuel was energetically required. For assistance with density calculations, see MBM Framework Ch. 10 for a calculation that includes energy density.
Question #2	Is it enough to show the mass balance documentation that I received from the fuel provider for it to be considered a Direct LETS?
Proposed Answer #2	Yes
SFC Answer #2	Please see MBM Specification section 6.3.1(b) for the documentation requirements for mass balance when identifying and documenting LETS

8. Additionality integrity measure and EU-ETS—current SFC statements

Topic	Market Based Measures; Additionality; EU-ETS
Keywords	Regulatory additionality; integrity measures & constraints
Applicable SFC normative document and relevant	MBM Specification, clause 7.5 MBM Framework, chapter 6 Integrity Measures & Constraints Worksheet, page 2

clauses	
Background	We have seen the MBM Framework in 2023 which says that EU-ETS is not additional. We have also reviewed the recent GMF/MMMCZCS white paper on additionality where the group deems that for maritime it is additional. And we have tried to use the MBM guidance “Integrity Measures & Constraints” worksheet. At this moment, it seems like there are conflicting opinions. What can we use for a verification engagement, and what is SFC’s current position?
Date of this version	17/12/2025

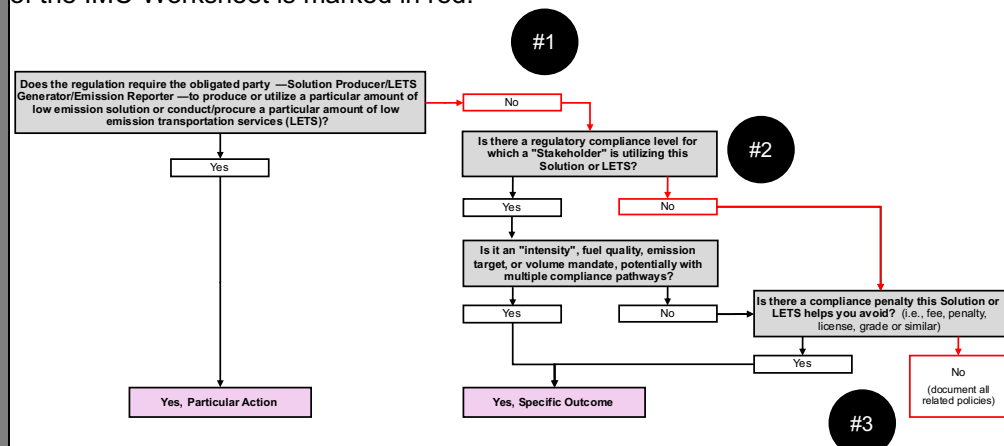
Question #1	I’m pursuing verification in the MBM Specification. I’m seeing conflicting indications for specific policies in SFC’s published writing (e.g., EU-ETS, when comparing the MBM Framework, white paper you co-authored with GMF/MMMCZCS, and the Integrity Measures Worksheet). 1. What’s the appropriate path to follow? When there are conflicts, what writing holds precedent? 2. If we know that another framework is similar (e.g., EU-ETS in aviation vs. EU-ETS in maritime), can we assume the additionality classification (additional or non-additional) is identical?
Proposed Answer #1	1. When the SFC releases/co-authors a concretization for specific frameworks, this overrules any general guidance documents (e.g., MBM Framework, Integrity Measures Worksheet). 2. Yes. Analogue to the white paper you co-authored with GMF/MMMCZCS, that argues for considering EU ETS in maritime as additional, we would consider EU ETS for aviation as additional.
SFC Answer #1	MBM Framework Chapter 6 defines additionality for LETS and guides to assess additionality status. MBM framework distinguishes between regulatory requirements, a particular action, or specific outcome. MBM Specification section 7.5 and 7.6 include additional supplementary guidance how to assess additionality. Additionally, the IMC-Worksheet has been designed to support documentation of an emission reporter’s approach to additionality to aid assessment by a Validation and Verification Body (VVB). The MBM Specification holds precedent over guidance (MBM Framework), and for the “Additionality Constraint”, it requires assessment and documentation of the assessment of minimum elements, including the justification for determining that additionality is fulfilled (7.5f) and why it is fulfilled in the specific circumstances given the Solution or LETS goes beyond the requirement. Emission reporters cite sources for this justification. In this case, the best source for the justification around ETS is the “Defining Additionality in the Voluntary Book and Claim Market in Deep Sea Shipping” paper, led by GMF/MMMCZCS, where SFC was a co-author. SFC does not make specific statements on policies in the Specification. We want to support aligned application of additionality integrity measures in the book and claim marketplace broadly and will endeavor to publish more positions on specific policies alongside other peer organizations, similar to the paper referred to above. We will post these “position” papers to our homepage to clarify that this is our prevailing position and may be used as evidence in a verification engagement. We will add further publications as they are released. This paper details that, provided an obligated party is compliant with EU-ETS (required allowances), additionality is considered satisfied - noting also that some shippers may ask for a market-based product provider to cancel allowances that <i>would have</i> been required had the original fuel or service been conducted on a fuel with a higher GHG emission profile. With regard to reasoning to support this position regarding the policy EU-ETS and its consistency with the program’s precedent, we note that, the MBM Framework made reference to the policy in its 2023 publication as an example of a specific outcome. Here where, the policy does deem an associated Solution or LETS non-additional. This was because the policy was identified as a common example of a “specific outcome” for the obligated parties to use Solutions or generate LETS. This policy is complicated, and the obligation itself is not for a particular action (eg, use X fuel or Y%) nor requires a specific emissions-related outcome. So, after careful consideration, together with peer organizations, we see this particular cap-and-trade/allowance scheme, EU-ETS as neither a specific outcome nor particular action with relation to a Solution or LETS

for the obligated party. The requirement is for an organization to have a specific number of *allowances* in their account at the end of the compliance period. Provided the obligated party has the allowances associated with its fuel and transportation activity, the emission profiles of their associated transport may be considered additional when booked and claimed.

Our justification: the section 7.6(a) and (b) are not able to be applied, as a Solution or LETS does not make a contribution to the quantification under the regulation and cannot be applied to towards achieving the requirement. Allowances are the vehicle of compliance. There is a relation, but it is not to a specific Solution or LETS.

The IMC Worksheet provides logic and should be used to help the Emission Reporter document their approach and work with a verifier. In an earlier copy of the Integrity Measures Worksheet did make a reference to “allowances” on page 2. This reference has been removed to avoid confusion with the above EU-ETS approach.

We hereby provide further clarification on the application of the above guidance and the IMC Worksheet for the application of the sustainable marine fuel (SMF) solution in maritime transport within the scope of the EU ETS – the decision path of STEP ONE of the IMC-Worksheet is marked in red:



EU ETS does not require operators to use a specific fuel, technology, (#1) or to meet a certain target (#2). Operators are required to surrender allowances corresponding to their emissions, thus paying for the pollution that they cause. The EU ETS emissions factors (just Tank-To-Wake boundary) of SMF are considered zero if SMF is certified according to an approved voluntary certification scheme for Renewable Energy Directive (e.g. RSB EU, ISCC EU). The entire system has a cap, which ensures as a boundary-defined area, the system will achieve its targets year-over-year. General allowance cap and allowance-surrender process are considered a market measure by European Union (see consideration no. 5 for directive 2003/87/EG). Therefore, allowances/allowance-surrendering-process are not considered a penalty (#3).

Irrespective of how EU ETS emissions allowances are covered, reduced or purchased, this would not affect the overall sector emission reduction target. Therefore, mitigation reduction efforts beyond this target “can” be regarded as “additional” from a holistic system perspective.

As noted in the GMF/MMMCZCS paper with our co-authors, there may be supplementary client preference requirements from a customer that ask that the low emission fuel or transportation service’s emission profile be compensated for with allowances held by the obligated party for counterfactual scenario – eg, the amount of allowances they would have needed had their transport been conducted on fossil fuel, for example. Such needs could be met by waiving reporting of SMF use in EU ETS.

We recommend the following approach(es) with respect to the EU ETS regulation:

The use of low-emission fuel by a maritime carrier on a service subject to EU ETS, partly or in full, is considered additional in the sense that such fuel has been produced, supplied and uplifted beyond regulatory requirements and provisions. Such “additional” fuel production and use do not necessarily coincide with additional carbon reduction beyond general regulatory targets which are controlled at the sector level (i.e., the market scope of the cap).

Optionality: as we authors wrote in the GMF/MMMCZCS paper, some purchasers (e.g., shippers) may take a more-strict reading of “above and beyond” and ask that organizations still have allowances for a counterfactual scenario. This may be more clear in project accounting approaches to transportation decarbonization (i.e., reductions).

To meet customer's "above and beyond" needs, the maritime carrier should observe full transparency and independent assessment on the use of specific SMF for EU ETS reporting and application for allocation of free allowances.

9. Recording a LETS on Behalf of an Upstream Partner

Topic	Road mode book and claim / market-based approach. Upstream partners who provide imperfect data, solution, and/or do not report emissions. Downstream cargo owner who wishes to report a LETS based on a book and claim chain of custody approach.
Keywords	Road mode; Upstream partner; HVO; Primary data; Direct/Indirect LETS, PoS (Proof of Sustainability); Standard operating procedure (SOP)
Applicable SFC normative document and relevant clauses	MBM Framework: Chapter 2, 5, 8, 9, 10, 11 MBM Specification: 6.3, 7.2, 7.4
Background	Earlier discussions highlighted challenges in the book and claim market for road shipments due to inconsistent reporting practices between shippers and carriers (modelled vs primary data). In response, we've developed a calculation standard operating procedure (SOP) that combines primary data from carriers with the modelled approach used by shippers. This SOP is built on the SFC Market Based Accounting Framework and outlines the necessary requirements for compliant lower emissions profile claims, and we'd appreciate help with the following questions in order to apply these concepts in our own standard operating procedure.
Date of this version	17/12/2025

SFC General notes:

First, general thoughts that will help considerations how to implement chain of custody approaches in compliance with normative accounting:

- Review the *MBM Specification* in addition to the MBM Framework (See [2024 announcement for context](#))
- As a shipper (cargo owner), it is recommended to take an inventory approach to emissions reporting using emission intensities (ie, ## Co2e/tkm, /pkm, /TEU-km, etc) in line with a normal, transportation compliant inventory (see [CDP explanation](#), for example)
- It's recommended to pay attention to language, "credits" or reductions when detailing the attribute that you are claiming through a book and claim chain of custody (i.e., you are likely claiming the *lower* emission profile of a fuel or service, not the carbon removal or subtraction). This is the difference between consequential and attributional accounting.
 - o See GHGP's ["Inventory and Project Accounting: A Comparative Review"](#)
- The assumption is generally that each organization is completing some level of dual-reporting when following a market-based approach. ISO 14083 says (on electricity) you shall use a location-based approach to accounting/reporting (i.e., physical accounting) and may use market-based accounting ([see section J.3](#)).
 - o Note 2: "When the organization uses contractual instruments for GHG emission attributes, including renewable energy certificates, these transactions shall be documented and reported separately."
 - o Note 4: "If the results are used for a product carbon footprint in accordance with ISO 14067, then the market-based electricity mix shall be reported in addition."

Question #1	As a shipper with cargo moved on many trade lanes, we often work with carriers and transportation service providers who have not developed sufficiently mature accounting practices to support our application of the MBM Framework. However, they are integral parts of our supply chain. Let's take the case of a carrier, who is moving cargo on our behalf. They do not provide us primary data, do not report their GHG emissions to any customer, and they are not
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	familiar with MBM accounting or book and claim. Yet, we are able to request that they use HVO on trucks that carry our cargo or trade lane or in a specified fleet. They are unable to book us a “LETS” (i.e. provide us data in the form of a ‘transport service’ per GLEC/ISO 14083) in the sense of the MBM Framework, yet they are able to provide us proof that they have procured and utilized the HVO on their trucks. How can we work with them to provide us a LETS that we can claim? Are we able to “book” a LETS ourselves (as a cargo owner/shipper) based on the data that we have? As part of SOP and requirements that we have set up, we include a 3rd party verification before we accept or allocate any alternative fuel from a carrier. The process basically consists on having a 3rd party verifying a series of criteria (established by us) on the carrier side to make sure they have a proper book and claim system, so as that they cover our specific requirements and have a correct volume verification that guarantees transparency in the usage of alt. fuel.
Proposed Answer #1	Yes, you can book LETS on behalf of our carrier if you have sufficient integrity measures in place.
SFC Answer #1	Short answer: qualified yes because your language is important. First, from the description, you are claiming the profile of a solution — a profile of low emission transportation fuel. You refer to a LETS but this does not seem to be the emission profile of a set of low emission transportation services (i.e., LETS, see MBM Specification 6.2). You are a shipper, and shippers do not generate and book LETS. They claim them. However, as a shipper, it is also OK to track, trace, and claim a solution profile (i.e., HVO). In this case, you’re doing so on their behalf. They are still, technically, the LETS generator and could report the required data of a LETS to you in the future, but from the information provided, you are procuring a solution profile (i.e., fuel profile) from this organization. You are choosing to re-apply this solution profile to your own transportation activity and inventory into your modeling software as a fuel profile. This helps you calculate the emissions of associated transportation services as if your cargo were transported on the low emission fuel profile you procured (HVO). This follows the process of “indirect LETS” where you apply a solution profile to your own transportation. You’re taking the profile of the fuel itself that the carrier used as an input into your own system vs. the attributes of the actual transportation activity/service that the “imperfect partner” (carrier) generated. This supply chain example doesn’t preclude the Emission Reporter from following the MBM Specification. We informally are calling this approach the “Upstream Partner LETS” or the “Imperfect Partner” to emphasize the fact that you are compensating for another part of the chain’s imperfect data. It is a fundamental principle in the MBM program that downstream decarbonization efforts should not be limited by imperfect upstream conditions (within reasonable limitations and respecting the other integrity measures). A carrier who is part of your supply chain but does not report emissions can be one of these cases—though we also highly recommend selecting aligned partners and suppliers who are able to provide industry standard GHG data and also meet an internal standard of emission declaration and integrity measures documentation.
Question #2	Is there a timestamp on the PoS after it was issued by the biofuel producer (meaning must it be “used” within XY months)? Even in cases, in which case the corresponding volume of HVO is stored in a tank? If yes, how is the information when the biofuels have been produced and the “original” PoS has been issued, forwarded in the supply chain with e.g. several traders included?
Proposed Answer #2	
SFC Answer #2	For the carrier that is physically using the fuel (i.e., direct provision of the solution/fuel), there is no time limit on use of the solution from an MBM standpoint. There may be chemical or other certification requirements (i.e., ASTM or otherwise) which would limit the timeframe in which a carrier may physically fuel in certain situations (i.e., air travel) Regarding booking/claiming of the emission profile, see the MBM Framework (Chapter 8) and Specification (sections 7.2, 7.3) for the different vintage requirements. When booking and claiming fuels, the solution provider shall record specific dates to provide evidence that vintage constraints are met (see vintage chapter of the MBM Framework Chapter 8/9 and MBM Specification 7.2 and for ‘production date’, see FAQ on SFC MBM website). Existing sustainability certification schemes may include other

	additional timelines as well as mandatory time stamps on certification system documents like PoS.
Question #3	Is this LETS booking on behalf of my upstream partner a direct booking?
Proposed Answer #3	Yes, it can be direct because my carrier is physically using the fuel
SFC Answer #3	In theory, it could be. However, the Emission Reporter will also need to comply with all applicable clauses of MBM Specification 6.2 and 6.3 as well as the integrity measures in Section 7. That is to say that it might be a direct LETS, but the carrier's data and documentation – even if recorded by a collaborative partner – must still satisfy the necessary requirements.

10. Market-based Inputs into MBM products (Guarantees of Origin (GoO), Renewable Energy Credits (REC); Carbon Capture and Storage (CCS))

Topic	Using GoOs to claim LETS in road transport & Using carbon capture and storage credits
Keywords	Road mode; Guarantees of Origin (GoOs); RECs
Applicable SFC normative document and relevant clauses	MBM Framework: Chapter 10 MBM Specification: 6.1
Background	Company A is evaluating whether alternative certification instruments and carbon-reduction mechanisms can be used within the SFC MBM framework. In particular, the company is considering the use of Guarantees of Origin (GoOs) for biomethane. GoOs sometimes include GHG emission-saving information in addition to the standard energy attribute disclosure. Furthermore, additional abatement options, such as emission savings from soil carbon accumulation (ESCA), carbon capture and storage (CCS), and carbon capture and utilization (CCU) could be used for low emissions solutions emissions profile determination.
Date of this version	17/12/2025

Question #1	Assuming a company is using a Guarantee of Origin (GoO) for biomethane used in the transport sector (e.g. issued by a biomethane producer in Denmark), including a statement on the GoO about GHG emission savings. Is this document also accepted under the SFC framework?
Proposed Answer #1	Yes
SFC Answer #1	Following a market-based approach, yes, the solution profile of biomethane can be documented using a GoO when verifying market-based approaches under the SFC MBM Specification. However, please keep in mind that in such a situation you are not claiming the emissions savings, you're claiming the fuel itself (to replace fossil methane in your supply chain)—and it's low emission qualities are central to the reason you're claiming this fuel. (See SFC's "Reductionist Reductions" blog post) ISO 14083 requires (paraphrasing) to use the location-based approach and optionally and additionally also use a market-based approach for electricity. ISO 14083 does not currently allow for accounting of non-physically linked fuels at all. The MBM Framework

	and MBM Specification are designed to support market-based approaches for claiming transportation services and fuels other than what was physically received and follow the logic of custody standard ISO 22095 (as well as the almost-published ISO 13659 for mass balance chains of custody and ISO 13662 for book and claim chains of custody). Following the transportation mode constraint, it needs to be ensured that an appropriate amount of biomethane was actually consumed in an appropriate vehicle (technically capable of burning methane-based fuels) in the same mode of transportation the LETS will be applied to. Or applied via credible allocation in a pipeline mass balance scenario (see footnote 12 on page 35 of the MBM Framework). In all situations, we recommend “similar in nature” attribute allocation when taking a market-based approach. For a shipper, this often means procuring TOC closeness where possible (e.g. only replacing large, refrigerated diesel truck transportation activity with similar large, refrigerated truck-based LETS from a carrier’s use of biodiesel).
Question #2	Are options like ESCA (emission saving from soil carbon accumulation), CCS (carbon capture and storage) and/ CCU (carbon capture and utilization) allowed? If yes, in line with RED requirements (and thus “verified” under the RED framework) or EU COM requirements (e.g. for CCS)? Would it be possible to “buy” credits from a CCS unit on the voluntary markets?
Proposed Answer #2	Yes
SFC Answer #2	No. It sounds like you’re referring to removals/reductions, not attributional (inventory) accounting approach. The SFC MBM Framework/Specification looks at solutions and transportation services SFC does not certify the sustainability profiles of fuels. We recommend the use of established certification frameworks to calculate the carbon intensity of solutions and services used in the transportation sector.

11. Multinational Road Carrier - Eligibility of Cross-Border Attribution and Unbundling of Solution’s Emissions Profile

Topic	Road mode - Eligibility of cross-border attribution and unbundling of solution emissions profile.
Keywords	Road mode; HVO; Cross-Border Attribution, Over-compensation, Disproportional Attribution, Multinational Multiple Organization Types
Applicable SFC normative document and relevant clauses	MBM Framework: Chapter 2, 5, 9, 11 MBM Specification: 6.3, 7.2, 7.4
Background	Company A - an international logistics operator is procuring hydrotreated vegetable oil (HVO) to decarbonize its transport activities. The fuel purchased in one country is physically consumed in the same country and is therefore counted under national regulation. For each batch purchased, Company A receives a corresponding Proof of Sustainability (PoS). Company A tries to understand whether PoS documentation and associated carbon-reduction “credits” originating from HVO consumed in one country can be allocated or transferred to other legal entities or customers in different countries, including within Company A’s corporate group. In addition, Company A seeks clarification on whether such allocations are limited by actual fuel consumption volumes, how double counting must be avoided, and whether a separation of physical fuel sales and PoS transfers is permissible under SFC MBM requirements.
Date of this version	17/12/2025

Question #1	A multi-national logistic company (Company A) is buying HVO in Finland. Company A also receives the corresponding PoS. The fuel is consumed in Finland and thus also accounted against the Finnish RED quota. Is company A allowed to transfer these “credits” (in this case the PoS of the HVO received) to their legal entity in Germany, which uses the PoS and the credits for accounting this under SFC Framework for their German customers (although the HVO was never transported to Germany)? If yes, which requirements must be fulfilled by company A to do so?
Proposed Answer #1	Yes, provided it's within the same company.
SFC Answer #1	The “multinational logistics company (company A)” is confirmed to be a Carrier (transport organization that owns assets and moves cargo). Splitting this answer into two parts: - given we're asking about a transfer of “credits” (Part A; this could refer to fuels or services) and; - a RED quota interaction (Part B). Credit is a generic term and is assumed to be an emission profile of fuel or LETS. Part A) Company A can approach their fuel procurement purely physically or incorporate the procurement of low emission fuel via solution profiles using book and claim. Depending on this choice, they can generate a Direct LETS or an Indirect LETS. It is less recommended for a carrier to pass along the profile of the Solution (i.e., the fuel attributes only), to a shipper, in order to provide similar data to a cargo owners as they would in a physical chain of custody. They would pass along a service-based attribute (e.g., tonne- kilometers and CO2e/tonne-kilometer). It reduces math requirements for the cargo owner and normalizes standard data flow. This allocation of the emissions profile of a Solution (i.e., fuel) using a book and claim chain-of-custody to transfer the low emission profile of a fuel or a LETS to the entity's German carrier or ultimately to a German shipper is possible. This is assumed to be a carrier-to-carrier allocation of LETS to Germany and then on to the shipper. It may also be completed as a fuel profile from Finland to Germany but could require more math or attribute manipulation to report in industry compliant format for downstream actors. The entity's German carrier claims the booked LETS or “generates” a LETS from the solution profile of the fuel. Both scenarios are generating LETS for claiming by the shipper. The carrier's approach would likely be option 7.2c or 7.2d in the MBM Specification. The carrier generates non-physical yet traceable “indirect LETS”. Notes: - The SFC MBM family of documents does not include geographic constraints - The MBM Framework uses the term emission profile, not credits Part B) The erroneous double-counting prevention within scope of the MBM program is between the carrier(s) involved as well as the shippers involved. Prevention measures must be taken by the carriers transferring LETS or fuel such that non-participating shippers do not claim the low emission profile of the services performed on the low emission fuel or service which was transferred to a new claimant. Per the MBM Specification, an emission reporter shall document their approach to erroneous double counting. The claim of the national government in fuel statistics and RED compliance is not within scope of the MBM Specification. If company A is a fuel supplier in Germany, it would be covered by German RED obligation and must be certified according to any RED compliant certification schemes (e.g. RSB EU, ISCC EU). Double claiming towards national RED compliance would be subject to the certification process. The erroneous double-counting requirements of the MBM Specification are located in Section 7.8. SFC also published an “Integrity Measures & Constraints Worksheet” to help emission reporters and their verifiers communicate around additionality and double counting..
Question #2	In case this is possible, would it also be possible for Company A to “collect” PoSs to completely cover all GHG emissions from transport for one customer (we would call this “over-compensation”)? Or is the amount of GHG savings to be claimed limited to the actual consumption of fuels (or biofuels)? (For example: if a company is consuming 100 l diesel, then only PoSs for 100l biodiesel can be used and not e.g. for more until total emissions are completely covered)?
Proposed Answer #2	Yes, PoSs can be joined together to cover all GHG emissions from a customer's transport.
SFC Answer	No. The second phrase is a valid correction to the original question. We consider “overallocation” going beyond 100%. In the case of procuring 100l of low emission

#2	solution to replace and apply to the 100l of traditional transportation fuel, this is not overallocation. It is not possible to “cover all GHG emissions” by claiming more than the actually used fuel volumes (100l in your example – plus or minus a small adjustment catering for the slightly different energy density of HVO vs. Diesel). It is possible to procure PoSs and fuel volumes up to the amount of fuel actually utilize or transportation activity actually conducted for a customer in order to support their claim to low emission transportation services. “Up to” is the operative word. (see transportation activity constraint in the MBM Framework and MBM Specification, clause 7.4 and SFC MBM Homepage on overallocation to “get to zero” (“Can my organization purchase more of an emission profile to report a net zero footprint?” paraphrased).
Question #3	Company A is cooperating with several customers using the SFC MBM Framework. For a transport to customers B and C (two different companies) using the same HVO and means of transport, is company A allowed to attribute the corresponding “credits” to only one of the two customers (e.g. only to customer B)?
Proposed Answer #3	Yes
SFC Answer #3	Yes, allowed by its voluntary adherence to the MBM Framework and MBM Specification. Again, we are recommending the term “emission profile” rather than credits. Generally, yes. We call this disproportionate allocation, where the attributes of the LETS are claimed by one party, and the other organization should receive the residual mix value (i.e., the non-LETS). We would probably need to further understand the scenario to answer any specific use. Please see MBM Framework, Chapter 11: “Declaring different GHG emission information to different stakeholders”
Question #4	Is company A allowed to buy (physically) HVO from a biofuels producer in Finland together with the PoS and then sell the (physical) batch of HVO to another company (company D) without the PoS and then sell the PoS to company C which is using the PoS under the SFC framework?
Proposed Answer #4	Yes
SFC Answer #4	Short answer, yes. By “PoS”, we assume you’re referring to the low emission profile of a fuel, generally. The Proof of Sustainability (PoS) is generally a piece of evidence versus the actual attribute, but the same logic applies. Note: an organization that was previously referred to as a carrier (Company A) is now trading fuel and therefore assumes the ‘solution provider’ role. One organization may act as multiple organization types (See MBM Framework Chapter 2, “Organizations in freight transportation supply chains”). Many countries have an authorization process for solution providers, as this may involve tax and other legal obligations. If such regulatory barriers are not relevant, a carrier can also act as a solution provider and trade fuel emission profiles (e.g. in the air transportation mode, there are some airlines (groups) that also have local entities for fuel trading). However, PoS are basically generated within a CoC system such as RSB EU or ISCC EU. PoS becomes invalid if passed on by a non-certified entity. But, Company A can unbundle scope 1 and scope 3 emissions profile according to SFC MBM Framework/Specification. We recommend reading Chapter 5 of the MBM Framework on what a Solution Provider is allowed to do in this case—e.g., an “Indirect” provision of a fuel, and would follow the other related conventions of the MBM Framework and Specification such as erroneous double-counting prevention, attention to unbundling of the emitter profile (Scope 1) and supply chain profile (Scope 3).

12. Eligibility of Bio-LNG chain-of-custody approaches and selection of GHG emissions factor

Topic	Bio-LNG
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Keywords	Physically-tied solution
Applicable SFC normative document and relevant clauses	SFC-SPEC-001 section 6.3.1
Background	Bio-LNG is generated in EU by using fossil liquefied natural gas (LNG) from sea terminal which has been supplied to a gas station. Simultaneously a biogas sustainability profile fed into 'natural' gas grid is claimed. This approach is actually REDII compliant and can be counted towards the emissions reduction of transport fuels. However, such a 'physically-non-tied-but-direct-fuel-supply' approach is not listed in the SFC MBM framework/specification for solution supplier. Furthermore, the carbon intensity of Bio-LNG is mostly significantly negative. The MBM homepage FAQ ask for robust carbon intensity documentation. The negative carbon intensity is documented on Proof of Sustainability (PoS).
Date of this version	17/12/2025

Question #1	Is it valid to use a book-and-claim chain of custody for tracking the sustainability profile of a solution such as Bio-LNG?
Proposed Answer #1	Yes
SFC Answer #1	The short answer is 'Yes'. The auditable methodology introduced by the MBM Specification (and guidance provided by the MBM Framework) are sector and fuel agnostic. This being said, it's important to note that it must be carefully analysed which chain-of-custody approach is applied for a specific solution. Basically, there are three scenarios for Bio-LNG: - Direct liquefaction of bio-methane* - Backhaul liquefaction of grid-gas at terminals and mass-balance with bio-methane (limited by Backhaul capacity) fed to grid* - Virtual liquefaction of bio-methane without physical connection between liquefaction and bio-methane by retiring Guarantees of Origin of bio-methane used elsewhere (e.g. fed into grid) *Compliant with European Union's Renewable Energy Directive (EU RED) Option a) is likely a separate chain-of custody model. Option b) refers to a mass-balance based attribution of sustainability profile of biomethane to LNG. Both chain of custody approaches are eligible according to MBM specification section 6.3.1. Option c) has no physical tie between bio-methane and LNG. Therefore, the requirements of MBM specification section 6.3.1 cannot be met. Note1: However, you may utilize GOs in an intentional market-based fashion as inputs into your solution and document under 6.3.2 for book and claim (see December 2025 interpretation).Note2: There shall be a physical connection between the alternative energy source and the corresponding low emissions transport solution when generating a Direct LETS.
Question #2	The negative carbon intensity is documented on PoS. Is a PoS considered a robust documentation? Interpretation #2 includes the statement to cut a negative carbon intensity of a solution to zero. MBM website FAQ says "Some regulations permit consequential accounting methods in the interest of promoting alternative fuel processing pathways. If granular data is not available, the reporter should cap negative CI emission factor input data to zero and avoid reporting negative emissions. However, the use of negative factors is not strictly prohibited but requires robust documentation and invites close scrutiny. For further clarification on regional applications and auditing such emissions intensities via the MBM Specification, please refer to our Public Interpretation #2".

Proposed Answer #2	Yes, PoS of an acknowledged sustainability certification scheme is considered a robust documentation.
SFC Answer #2	A sustainability certification scheme is normally based on a specific regulation/policy. Such regulation can include ‘incentives’ like GHG emissions saving bonus or GHG emissions credits for specific production pathways or feedstocks based on a political decision. For example: - EU RED includes a ‘Manure Management Bonus’ for manure based biomethane. - ICAO CORSIA Methodology for Calculation Actual Life Cycle Emissions Values includes ‘Net realization savings’, ‘Avoided Landfill Emissions Credits’ and ‘Recycling Emissions Credits’. Therefore, final carbon intensity figure of a PoS may include consequential GHG emissions figures. ISO 14083 does not mention to include consequential GHG emissions ‘savings’ but a life cycle emissions factor shall include (see ISO 14083 Annex J.3): - GHG emissions from the extraction or cultivation of raw materials - annual GHG emissions from carbon stock changes caused by land-use change (20-year perspective) - GHG emissions from processing - GHG emissions from transport and distribution - GHG emissions from the fuel in use However, ISO 14083 Annex J.3 explicitly exclude consequential GHG emissions from induced land-use change. Hence, an ISO 14083 compliant life cycle GHG emissions factor of a solution shall not include any consequential GHG emissions accounting figure/factor. PoS may contain disaggregated partial GHG emissions contributions/figures. If consequential accounting GHG emissions figures can be identified, it should be removed from the calculation of total carbon intensity before use for ISO 14083 compliant GHG emissions reporting. If shares cannot be identified and consequential GHG emissions accounting figures cannot be excluded due to the production pathway, the default from the current GLEC framework should be applied. NOTE: For biomethane/bio-LNG in particular, the methane slip of the used engine can have a significant impact on the life cycle GHG emissions factor..

13. BEV and renewable electricity in market-based measures

Topic	Electricity for BEV
Keywords	BEV, Emissions factors
Applicable SFC normative document and relevant clauses	SFC-SPEC-001 Section 6, ISO 14083 Annex J.3
Background	ISO 14083 Annex J.3 requires emissions reporters (ER) to use the location-based approach to report GHG emissions from electricity use. An ER may also report market based GHG emissions for electricity use. SFC-SPEC-001 requires reporting the sustainability profile of the solution. In principle, solution profiles are ‘market-based’. Using a location-based figure is therefore somewhat inconsistent. It is therefore not clear whether only one value should be specified for SFC-SPEC-001 section 6.2 c) & d) or two values.

Question #1	Shall the MBM reporter of battery electric vehicle (BEV)-based LETS use location-based electricity GHG emissions profile for compliance with SFC-SPEC-001 section 6.2 c) & d) if market-based GHG emissions profile is available and consistent with ISO 14083 Annex J.3 and SFC-SPEC-001 section 6.1?
Proposed Answer #1	No – SFC MBM and SFC-SPEC-001 are focusing on market-based measures. Therefore, the MBM reporter should report market-based solution profile. Market-based solution profile shall be consistent with ISO 14083 Annex J.3. The chain-of custody for the solution profile shall be consistent with SFC-SPEC-001 chapter 6.1.1, 6.1.2, and 6.1.3. The MBM reporter may report the location-based GHG emissions as well.
SFC Answer	SFC considers such a case a ‘stacking’ of market-based measures. Under the new ISO standard for book and claim, this is a market-based output that becomes an input into another system boundary. This means that different solutions are combined to achieve a low-emission transport service (LETS) – e.g. utilization of a BEV (solution #1) and the purchase of renewable electricity for charging the BEV (solution #2). The requirements and recommendations of the MBM Specification apply to both solutions. Final LETS characteristics according to MBM specification 6.2 c) & d) shall be calculated after stacking of solution and disclosed in the MBM report. When information on baseline (ie, reference case) of the LETS is disclosed, the baseline of each solution shall be disclosed separately. Note: Requirements and recommendations of MBM specification section 6.2.1 and section 6.4 apply. Example: - Carrier switches from Rigid 20 t diesel truck to a Rigid 20 t BEV truck and generates 1000 tkm LETS. - Additionally, the carrier purchases renewable electricity with ISO 14083-compliant emissions factor of 15 gCO₂/kWh for charging the BEV. The ISO 14083 compliant location-based electricity emissions factor is 350 gCO₂/kWh. - The diesel baseline emissions intensity is 137 gCO₂/tkm. The energy intensity of the BEV truck is 0.22 kWh/tkm. - Carrier reports: - Baseline 1: Diesel Truck: 137 gCO₂/tkm – total 137 kgCO₂ - Baseline 2—BEV Truck (location-based electricity): 0.22 kWh/tkm x 350 gCO₂/kWh = 77 gCO₂/tkm– total 77 kgCO₂ - LETS—BEV Truck (market-based electricity): 0.22 kWh/tkm x 15 gCO₂/kWh = 3.3 gCO₂/tkm – total 3.3 kgCO₂

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