



# Certification Scheme

## Chain of Custody Requirements

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## History of Changes

Document Version	Date	Description of changes

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## Definition of Terms

Term	Definition
<b>Book&amp;Claim model</b>	Chain of custody model where product attributes are separated from the physical flow of the product
<b>Carbon Footprint (CFP)</b>	Sum of GHG emissions and GHG removals in a product system, expressed as CO <sub>2</sub> -equivalents and based on a life cycle assessment using the single impact category of climate change.
<b>[Product] certificates</b>	Digital documents issued at time of production for each tonne of product having environmental attributes that are intended to be disclosed.
<b>Certificate retirement statement</b>	Document indicating the identification numbers of the certificates that were retired for the purpose of Disclosure
<b>Consignment</b>	Lot of product in the supply chain having a given set of attributes
<b>Consumer</b>	The end-user to which the ammonia is supplied and that will further process it
<b>Consignment attribute declaration</b>	Document providing the attributes of a consignment as it changes custody within the supply chain.
<b>Corporate group</b>	Business entity or entities belonging to the same corporate group, in accordance with EU Directive 2013/34 on financial reporting and consolidation of accounts.
<b>Disclosure</b>	The process whereby a supplier provides information on the attributes of the product supplied to a Consumer
<b>European Single Market (ESM)</b>	The European single market, also known as the European internal market or the European common market, is the market comprising the 27 member states of the European Union along with Iceland, Liechtenstein, Norway, and Switzerland
<b>Issue / Issuing</b>	The process of creating a certificate in a registry
<b>Mass Balance model</b>	Chain of custody model where product attributes follow the physical flow of product, while allowing mixing of certified and non-certified product within the same supply chain
<b>(Economic) operator</b>	Operators having ownership of the product in the supply chain
<b>Origin</b>	Primary energy source from which the energy content of the ammonia originates.
<b>Participating plant</b>	Ammonia production plant participating to the certification scheme
<b>Producer</b>	A producer of ammonia
<b>Product attributes</b>	Origin and carbon footprint of the product constituting a consignment in the supply chain
<b>Product Attribute Statement</b>	Document disclosing the attributes of the product supplied to a consumer
<b>Registry</b>	An IT solution for holding and managing the life cycle of Certificates, i.e. . <ul style="list-style-type: none"> <li>- Issuing</li> <li>- Transfer</li> <li>- Retirement</li> <li>- Expiration</li> </ul>

<b>Residual Mix</b>	The mix of origin and carbon footprint of the ammonia supplied from the participating plants of a Corporate Group in a given period of time, excluding product for which certificates were retired, and excluding ammonia covered by other means of explicit tracking.
<b>Retire/Retirement</b>	Assignment of the attributes of a certificate to a unit amount of product supplied to a consumer at the request of the certificate holder, by identifying the certificate as used, making it unusable again for the same purpose thereafter
<b>Supplier</b>	A supplier of ammonia to a consumer
<b>Sustainability attributes</b>	Origin and Carbon Footprint
<b>Well-to-production-gate CFP</b>	Partial carbon footprint of a product considering all the processes in the product system from extraction of raw materials up to the point where the product is made available for transport and supply to users.
<b>Well-to-supply gate carbon footprint</b>	Partial carbon footprint of a product considering all the processes in the product system from extraction of raw materials to the transport to the user of ammonia up to the supply of ammonia to the user.

## 1 Introduction

This subsidiary document to the Ammonia Europe ammonia certification scheme document describes the chain of custody requirements to be applied under the Ammonia Europe certification scheme.

Chain of custody requirements are those pertaining to controlling and documenting the transfer of product sustainability attributes across the supply chain. Application of chain of custody requirements allows for trustworthy claims regarding the sustainability of material in supply chains by linking transfers of sustainability characteristics to transfers of physical materials, while ensuring that no more sustainable materials are withdrawn from than put into the supply chain.

The elements described in this document are relevant for the full supply chain of ammonia up to the point of ammonia delivery to the consumer. Sustainability attributes must be declared by certified economic operators along the supply chain.

The Ammonia Europe certification scheme allows to certify ammonia from the ammonia production site up to delivery to the consumer of ammonia for further processing. To that end, this certification scheme builds upon other relevant certification systems covering renewable electricity, hydrogen, natural gas, biomass, and potentially other inputs.



## 2 General Working Principle

### 2.1 Combination of Mass Balance with optional restricted implementation of Book&Claim

The Ammonia Europe Certification Scheme relies on Product Certificates for disclosing the attributes of ammonia supplied to a consumer, with implementation of Mass Balance in the supply chain, while allowing ammonia attributes to be alternatively assigned to consumption on a Book&Claim basis under certain conditions (see further below).

This system has the following advantages:

- Flexibility in assigning sustainability attributes of produced ammonia to ammonia consumption;
- Compatible with certification addressing regulatory compliance, which requires implementation of Mass Balance;
- Disclosure of a greater amount of information to the ammonia consumer and increased product traceability compared to what can be achieved by implementing Mass Balance alone.

Product Certificates are digital documents issued at time of production for each tonne of product having environmental attributes that are intended to be disclosed. Held in a registry, these certificates are the instrument that suppliers participating to the certification scheme must use for substantiating a claim regarding the environmental attributes of product supplied to a consumer. The use of certificates for making a claim consists in “retiring” the certificates for the quantity supplied, thus preventing the use of these certificates for quantities beyond that for which they were issued.

The Retirement Statement that is generated upon retirement of the certificates for the designated supply, provides the evidence that the claimed product attributes were assigned to the product supplied. It includes the identification numbers of the certificates that were retired along with information collected by the account holder requesting the retirement on the place, time and use sector of the ammonia supply.

The supplier making a claim on the environmental attributes of the product supplied must hold the corresponding product certificates in its own account to be able to request the retirement of these certificates as required to substantiate the claim. Each participating economic operator is required to set up and use a certificate registry<sup>1</sup> (subject to periodic audit).

Mass Balance is a chain of custody model under which sustainability attributes of products remain assigned along the physical supply chain to a certain quantity of product, while the physical mixing of materials with varying sustainability attributes is allowed. Mass Balance is applied across spatially defined systems with the aim of ensuring that the amount of product with specific attributes withdrawn from a physical system in the mass balance period does

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<sup>1</sup> If the registry is not a central registry shared between participating economic operators, claiming supply of certified products not produced within the corporate group of the supplier is not possible.

not exceed the amount that was put in. A spatially defined system may refer to an object (tank, bulk transport container) or process or logistical facility within a continuous perimeter defined by a site, or a connected pipe-based distribution infrastructure.

Mass balance needs to be performed by all economic operators in the supply chain having custody of the ammonia up to supply to the ammonia consumer, including traders.

In the context of Mass Balance, sustainability attributes assigned to a given quantity of product are documented and evidenced by a so-called Consignment Attribute Declaration provided with the physical product as it changes custody within the supply chain.

Under the Ammonia Europe Certification Scheme, these Consignment Attribute Declarations include the identification numbers of the Product Certificates that were issued for the product.

Upon supply of sustainable ammonia to a consumer, the ammonia supplier has two options:

1. Claim supply of ammonia having the environmental attributes of the physical product stated in the Consignment Attribute Declaration as well as in the Product Certificates to which the former refers, by requesting the retirement of these Product Certificates.

OR

2. Reassign the sustainability attributes to the supply of ammonia to another consumer (to which the sustainable ammonia could not have been delivered following a mass balance system) on a Book&Claim basis, by requesting the retirement of the Product Certificates for the ammonia supplied to that other consumer.

Whichever of the two options above is applied, any claim on the environmental attributes of the product supplied to a consumer can only be made by retiring certificates.

The reassignment of attributes on a Book&Claim basis to another supply of ammonia than the one to which the attributes were initially assigned on a mass balance basis (option 2 above) is subject to the following restrictions:

- a) The ammonia consumer to which the product attributes are intended to be reassigned is located within the European Single Market.
- b) Product certificates may *only* be transferred between entities (economic operators) in the supply chain to support disclosure on a Book&Claim basis, without corresponding physical transfer of product under a certified mass balance system, *if the entities are part of the same corporate group*<sup>2</sup>.

The above restrictions do not preclude the transfer of ammonia with specified sustainability attributes on a Mass Balance basis between entities at any step of the supply chain, anywhere in the world. In this case, the entities having ownership of the ammonia in the supply chain need to be also product certificate account holders, and the product certificates

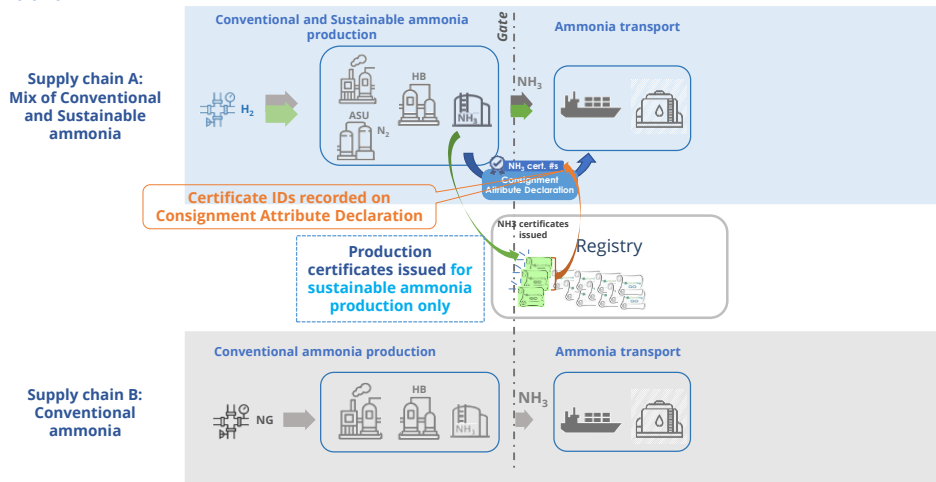
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<sup>2</sup> Corporate group as defined by Directive 2013/34/EU of the European Parliament and of the Council of 26 June 2013 on the annual financial statements, consolidated financial statements and related reports of certain types of undertakings, amending Directive 2006/43/EC of the European Parliament and of the Council and repealing Council Directives 78/660/EEC and 83/349/EEC Text with EEA relevance.

covering the transferred product need to be transferred from the seller’s certificate account to the buyer’s certificate account in conjunction with the physical transfer.

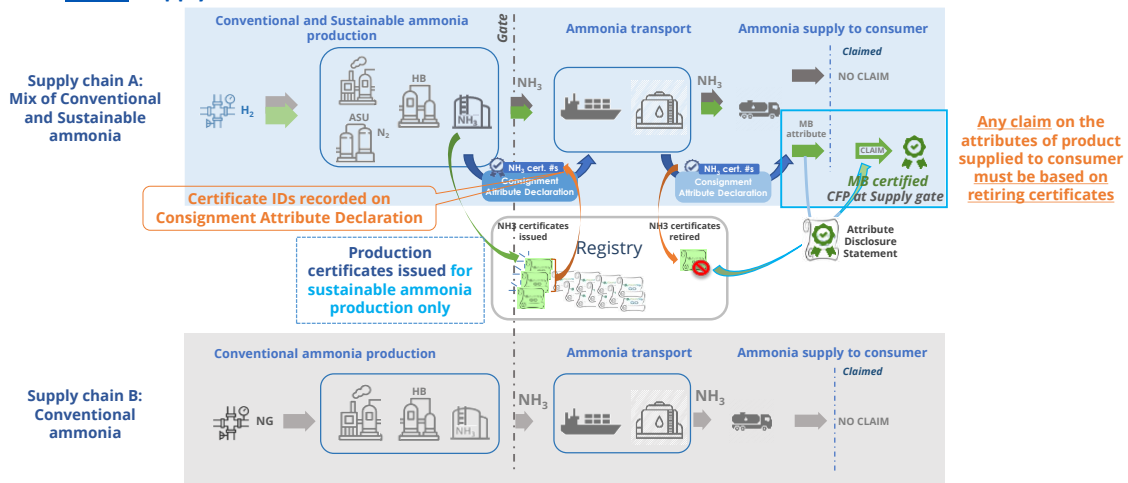
Figure 1 illustrates the assignment of sustainability attributes on a Book&Claim basis.

**Step 1. Certificates are issued for production of sustainable ammonia in participating plants; Certificate IDs are recorded on the consignment attribute declarations used to implement mass balance in the supply chain**



**Step 2. Disclosure of attributes to the consumer by retiring certificates**

**Case 1: Supply of sustainable ammonia on a Mass Balance basis**



**Case 2: Supply of sustainable ammonia on a Book&Claim basis**

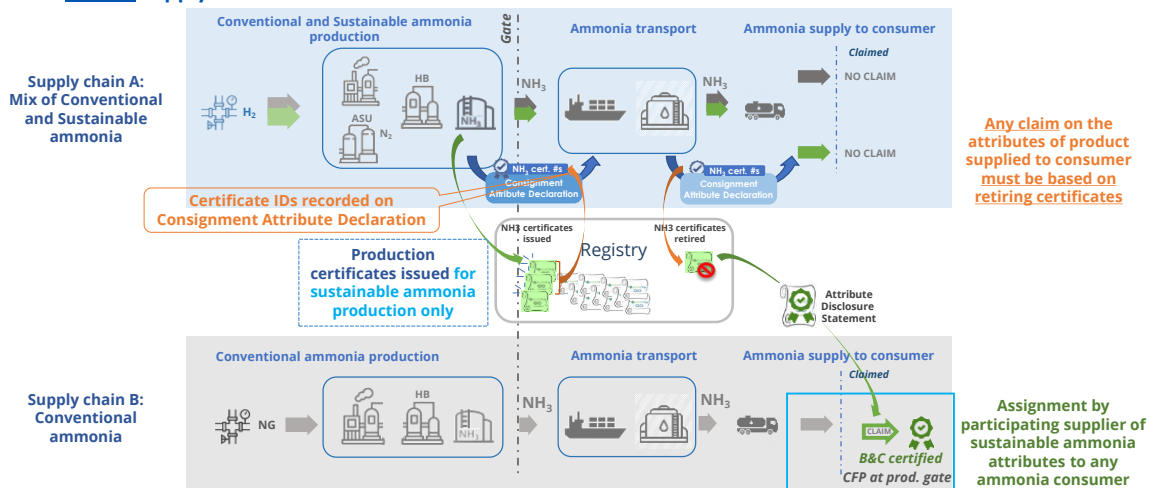


Figure 1: Implementation of Mass Balance and Book&Claim Chain of Custody models in a hybrid model – Reassignment of attributes on a Mass Balance basis or on a Book&Claim basis. Source: Hincio.

The textbox below summarises the operational implications when pairing Mass Balance with a Book&Claim.

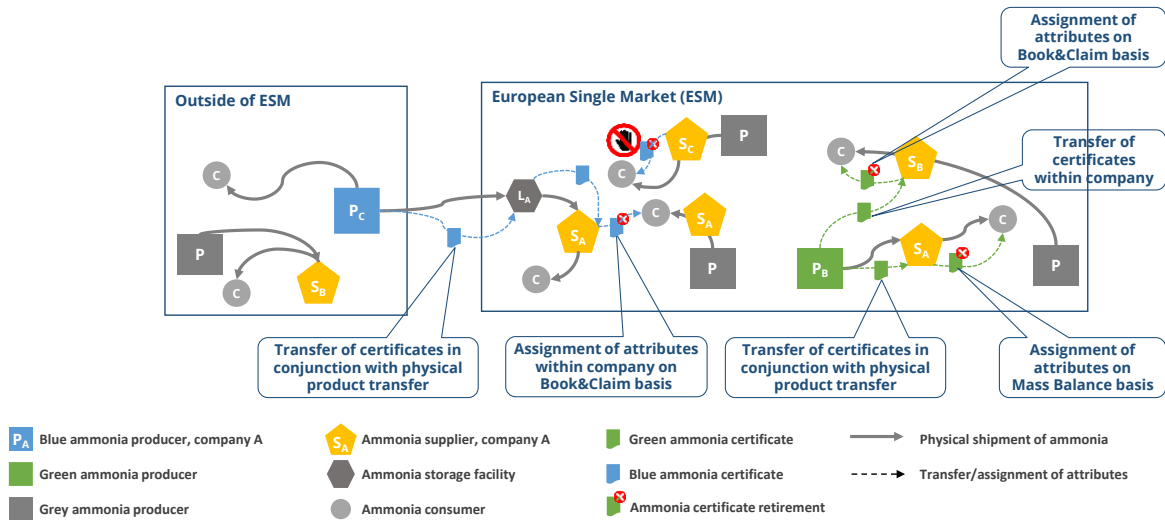
*Textbox 1: Operational implications when pairing mass balance with a book&claim*

Implementing mass balance within a B&C domain requires the following additional measures (compared to stand alone implementation of mass balance):

- The ammonia producer ties the ID range of the certificates issued to the corresponding product consignments, by recording the certificate ID range in the consignment attribute declaration issued for the ammonia consignment.
- The certificate ID range is carried forward by the economic operators generating consignment attribute declarations downstream in the supply chain
- If ammonia batches are split in the mass balance supply chain, the attached certificate ID range is split proportionally
- Upon supply of ammonia to a consumer, the supplier may elect to assign sustainable ammonia attributes to that consumer on a mass balance basis or on a book&claim basis.
- For assignment of sustainable ammonia attributes on a mass balance basis, the supplier requests the retirement of the certificates that the consignment attribute declaration of the consignment and delivers an Attribute Disclosure Declaration to the consumer including the well to supply gate carbon footprint of the product supplied, combining information from the cancelled certificates and the consignment consignment attribute declaration.
- For assignment of sustainable ammonia attributes on a book&claim basis, the supplier requests the retirement of certificates selected in the registry and delivers an Attribute Disclosure Declaration to the consumer including the well to production gate carbon footprint of the product supplied, based on the cancelled certificates.
- In both cases above, if the supplier is not the producer, the certificates to be cancelled must have been previously transferred to the supplier.
- A supplier may not make any claim on the attributes of the ammonia supplied without having requested the retirement of the corresponding certificates.

Figure 2 illustrates the transfers and assignments of product attributes that the Ammonia Europe chain of custody model allows and doesn't allow according to the working principles described above, depending on whether production or consumption takes place with the European Single Market and on whether the ammonia producer and the ammonia supplier are part of the same corporate group.

allowed attribute assignments



unallowed attribute assignments

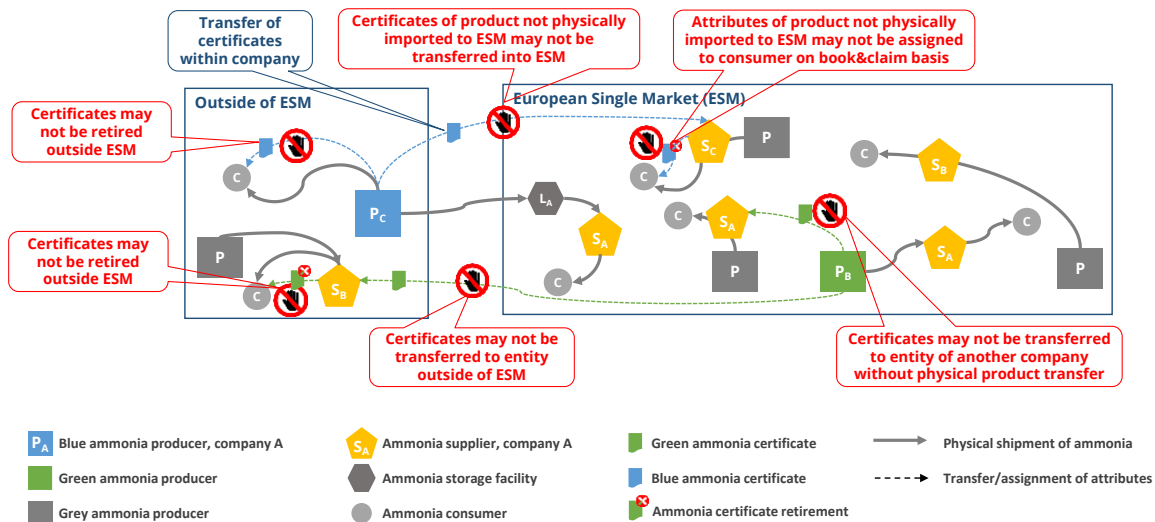


Figure 2: Product certificate transfers and assignments of product attributes that the Ammonia Europe chain of custody model allows and doesn't allow. Source: Hincio.

## 2.2 Scope of the Carbon Footprint

Whether Mass Balance or Book&Claim is applied influences the scope of the communicated carbon footprint.

When attributes are assigned in line with Mass Balance, the scope of the carbon footprint disclosed to the consumer is well-to-supply-gate. As a result, when assignment of attributes in line with Mass Balance is intended for at least one consumer of the ammonia from the physical supply chain, the emissions from transport and storage stages between well-to-gate and well-to-supply-gate need to be determined and added at each stage to the carbon footprint indicated in the Product Attribution Declaration.

When attributes are assigned on a Book&Claim basis, the scope of the communicated carbon footprint is well-to gate.

The rationale for the above lies in the fact that with Mass Balance, the product attributes remain tied to physical product flow in the supply chain. The emissions from transporting the product to the gate of the consumer can therefore be determined and included in the footprint of the delivered product. This is not the case when the attributes are separated from the physical product under the Book&Claim model.

### Residual Mix

The concept of Residual Mix is necessary to address the case where product is supplied to a consumer without disclosure of its environmental attributes and hence without the retirement of product certificates.

Ammonia supplied to a consumer without retiring certificates must be defined as ammonia from the Residual Mix, having the combined attributes (energy origin and carbon footprint) of all the ammonia supplied under the umbrella of the corporate group without retiring certificates.

By default, the residual mix may be composed of ammonia produced from natural gas. Alternatively, suppliers may determine a residual mix footprint based on the plant specific carbon footprint of the ammonia produced for which certificates were not issued and retired, also considering the carbon footprint of externally procured ammonia.

To maintain accountability, if the product mix of a supplier includes ammonia produced from coal, this ammonia must be specifically assigned to consumers on the basis of mass balance, in effect keeping the product out of the supplier's Residual Mix.

## 2.3 Company Registry

Ammonia Europe Certification Scheme requires suppliers to have their own company registry. A company registry is set up and managed by a participating ammonia producer. Each registry includes the participating operational ('spatial') units.

A company registry has the following minimum functional requirements for a secure chain of custody and credible accounting:

- **Issuing** of the Ammonia certificates for ammonia produced by the participating ammonia production plant(s)
- **Transfer** of the certificates from one to another entity
- **Retirement** of certificates by the economic operator and the generation of a certificate retirement statement
- **Expiration** of certificates upon reaching the expiry date, the Registry automatically changes the status of the Certificate to "expired".

As the registry is intended for international uses, it will need to comply with internationally accepted standards for cybersecurity to prevent unauthorized access and data corruption. This would include the need for features such as multi-factor authentication during login.

The data in the registry should be accurate and any edits will need to be properly authorized. Periodic validation should be carried out to ensure that the registry data are "self-consistent" i.e. no more certificates are leaving the system than exist in it at any given time. Features

similar to double entry bookkeeping should be disabled. Registries will be audited as part of the annual audits.

### Certificate Issuing

Economic operators and their respective production plant with a valid economic operator certificate, following the example presented in Annex 1, are allowed to issue ammonia certificates. Economic operators are responsible for providing their registry with the required certificate data. Issuing is subject to an automatic check of completeness and consistency of data provided. Certificate ID string should be automatically generated by the registry.

Certificates are issued by the Economic Operator in its company registry for each tonne of ammonia produced. An example certificate is included in Annex 2.

### Certificate Transfer

This refers to the transfer of the certificates from one to another entity. The transfer of the product certificates needed to allow a supplier to make a claim on the environmental attributes of the product supplied on a Book&Claim basis, may only take place between certificate account holders belonging to the same corporate group.

### Certificate Retirement

Certificate retirement is triggered by the respective Certificate owner through a retirement request, in relation to the physical supply of ammonia to an ammonia consumer.

The request includes information about the ammonia use for which the Certificate is being retired. A retirement statement, is generated by the registry used by the supplier to claim the sustainability attributes of the ammonia supplied to the consumer (see par. 3.2).

### Certificate Expiration

Certificates expire after 1 year from issuing. Upon reaching the expiry date, the Registry automatically changes the status of the Certificate to “expired”. Expired Certificates can neither be transferred nor retired anymore.



### 3 Mass Balance supply chain

#### 3.1 Mass Balance Requirements

##### General requirements

The principle of mass balancing within a spatial unit is shown in Figure 3. Consignments with differing sustainability characteristics that have been physically mixed within a spatial unit, keep their respective sustainability characteristics.

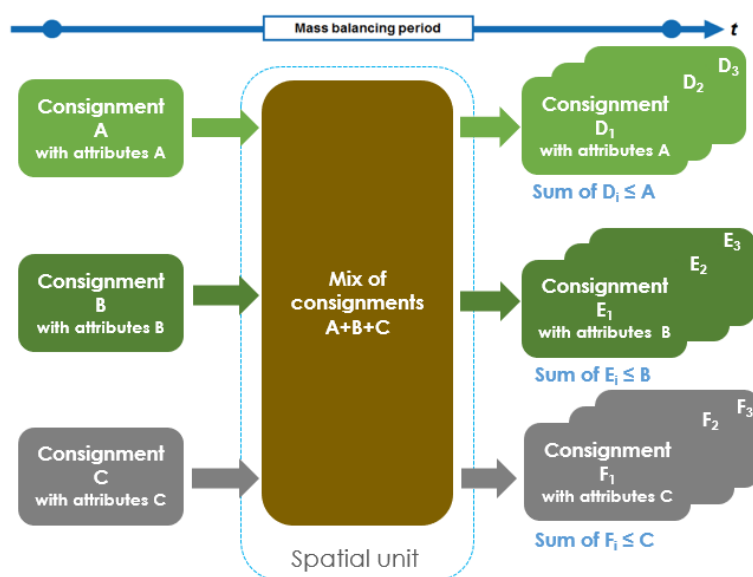


Figure 3: A Mass Balance system

With respect to the carbon emissions of the materials, this means that if two products with distinct carbon footprints are mixed, each resulting consignment maintains its original carbon footprint, i.e., it is not allowed to calculate an average footprint for both consignments.

In the case that a consignment is split, its set of sustainability attributes is assigned to its sub-parts.

The quantity of product with specific attributes withdrawn from the spatial unit must not exceed the amount of product with the same specific attributes added to the mixture over the specified balancing period or present in the spatial at the beginning of the mass balancing period. ., i.e. the sum of  $D_i$  must be equal to or smaller than  $A$  in Figure 3. The requirements on quantity and mass balance bookkeeping are laid out in section 0.

## Spatial Unit

Mass balancing must be performed over a defined spatial unit. The spatial unit defines the physical system or geographical location with defined boundaries over which mass balance can be applied. Such a spatial boundary must be specifically defined for each relevant part of the chain of custody. Such a spatial entity can be either a stationary or mobile container, a production site, a logistical facility, or a connected transmission infrastructure.

Economic operators are required to document the quantities of sustainable materials that enter and leave the spatial unit. In the case of a transmission infrastructure, such as a gas grid, this means documenting the quantities of renewable gas that are injected into and withdrawn from the grid.

## Mass Balancing Period

The period over which the input and output quantities with specific sustainability characteristics must be balanced, namely the mass balancing period, is restricted to 3 months and must be consignment specific. The start and end of the period shall be aligned with the four quarters of the calendar year. Alternatively, economic operators may use their economic year used for bookkeeping purposes or a different choice that is clearly indicated and applied consistently. Mass balance periods must be immediately following the previous, meaning that there cannot be periods of time in which there is no mass balance, regardless of whether sustainable material has been processed.

## Mass Balance Calculation

The input and output of sustainable materials over the mass balancing period must be balanced. While the balance may be negative in the course of the period, it is not allowed to have a negative mass balance at the end of the mass balancing period. A positive mass balance is allowed, and it occurs when more sustainable material was supplied than dispatched over the mass balancing period. The surplus material is referred to as a credit. Transfer of credits to the next mass balance period is only allowed to the extent that the spatial unit contains at least the same amount of product in physical inventory. Mass balance requires the following equation to be satisfied at the end of the mass balancing period for product with any given set of attributes:

$$m_{\text{withdrawn}} + C_{\text{end}} = m_{\text{added}} + C_{\text{start}}$$

Where  $m_{\text{withdrawn}}$  is the mass of product with the considered sustainability attributes withdrawn from the spatial unit,  $m_{\text{added}}$  is the mass of product with the same attributes added to the spatial unit,  $C_{\text{start}}$  is the credit for product with the same attributes at the start of the MB period, and  $C_{\text{end}}$  is the credit for product with the same attributes at the end of the MB period. These credits must be positive.

## Mass Balance Bookkeeping

Mass balance bookkeeping is performed by the owner of the ammonia product in the mass balance system (such as a storage facility). This may be only a fraction of the total amount of product physically present in the mass balance system if it holds product owned by different economic operators.

The economic operator must maintain appropriate mass balance bookkeeping for all sustainable and non-sustainable input and output materials, as well as for company internal processes.

Each consignment of incoming material must be documented with its quantity and sustainability attributes in the mass balance bookkeeping. Mixing or splitting of the incoming batches must be documented for all company internal processes. The information to be included in the bookkeeping is summarized in Table 1.

*Table 1: Requirements for mass balance bookkeeping*

	Batch	Renewability	Carbon footprint (tCO <sub>2</sub> e /tNH <sub>3</sub> )	Type	Quantity (t)
Description	Batch number	Origin of the batch	Carbon footprint of the batch	Type of energy source	Amount of material

An example of the physical mass balancing and the corresponding mass balance bookkeeping is shown in Table 2 and Figure 4, respectively.

Table 2: Mass balance bookkeeping example with a Loss Factor of 1

Input materials						Output materials					
Batch number	Core energy source	Country of origin	Claim	CFP	Quantity	Batch number	Core energy source	Country of origin	Claim	CFP	Quantity
1	Solar	Spain	Ammonia Europe compliant	0 g CO <sub>2</sub> e/kg	500 t	4	Solar	Spain	Ammonia Europe compliant	0 g CO <sub>2</sub> e/kg	500 t
2	Solar	Spain	Ammonia Europe compliant	0 g CO <sub>2</sub> e/kg	1000 t	5	Solar	Spain	Ammonia Europe compliant	0 g CO <sub>2</sub> e/kg	500 t
3	Natural gas	France	-	2 g CO <sub>2</sub> e/kg	750 t	6	Solar	Spain	Ammonia Europe compliant	0 g CO <sub>2</sub> e/kg	500 t
						7	Natural gas	France	-	2 g CO <sub>2</sub> e/kg	750 t

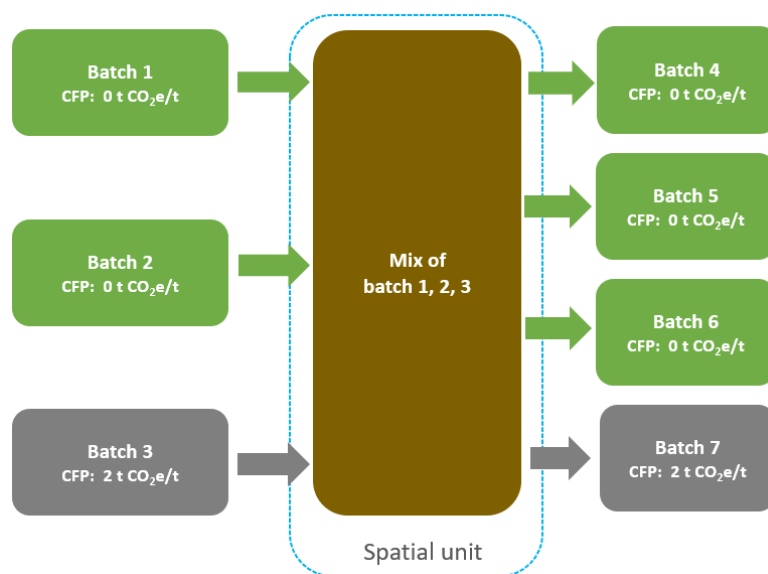


Figure 4: Physical mass balance example

### 3.2 Consignment attribute declaration

A Consignment attribute declaration is provided with each consignment of ammonia having specific environmental attributes transferred within the supply chain for enabling mass balance and keeping track of the estimated GHG emissions from handling and transporting the

Economic operators are free to choose the form and layout of the Consignment attribute declaration.

An example of a Consignment attribute declaration can be found in Annex 3.

Note: Consignment attribute declarations are only intended for use within the supply chain. They are not a means of disclosure of attributes to the consumer.

#### Carbon footprint

The Consignment attribute declaration must indicate carbon footprint at the gate for the next economic operator or ammonia consumer in the supply chain.

For the ammonia production this requires the disclosure of the ammonia production footprint, indicated on both the ammonia certificate and the Sustainability Declaration.

Additionally, the carbon footprint may be incremented with the GHG emissions generated by activities downstream of production, such as transport and storage up to supply gate.

### 3.3 Mass Balance Audit Requirements

During the auditing process, it must be verified that the mass balance is maintained and no more output than input material was claimed as sustainable. The economic operator is required to provide all relevant documentation to the auditor, including at least:

- List of all certified plants with respective spatial boundaries
- Quantities of sustainable and non-sustainable input and output materials per plant
- Conversion factors, including their calculation
- Mass balancing period (start and end date)
- Consignment attribute declarations of incoming and outgoing materials, declaring the sustainability attributes of materials
- Mass balance calculations

Records and documentation on traceability, quantity bookkeeping, mass balance and GHG emissions must be up to date and must be fully accessible to the Certification Body and the Auditor in the Audit process.

### 3.4 Attribute Disclosure Statement

The attribute disclosure statement is how the supplier discloses the attributes assigned to product supplied. It brings together information from the certificate retirement statement as well as from the Consignment attribute declarations for the corresponding consignments if the attributes are assigned in accordance with mass balance, following the template provided in Annex 4.

The information provided by the attribute disclosure statement depends of the chain of custody model applied for assigning attributes to the product supplied to the consumer:

If the supplier choses to assign attributes on a book and claim basis, the attribute disclosure statement presents the attributes of the supplied product based on the retirement statement of the certificates that the supplier chose to retire for this purpose.

If the supplier choses to assign attributes in a mass balance basis, the attribute disclosure statement presents the attributes of the supplied product based on the retirement statement of the certificates identified in the product attributed declarations of the consignment supplied, with a product footprint including the estimated emissions from transport and handling in the supply chain up to the point of delivery.

## Annexes

### Annex 1 Template Economic Operator Certificate

Economic Operator Certificate	
<b>ID Number</b>	<i>ID number</i>
<b>Name of Certification Body</b>	
<u>certifies that</u>	
<b>Name of Economic Operator</b>	
<b>Site location</b>	<ul style="list-style-type: none"> <li>• Address</li> <li>• Coordinates</li> </ul>
<u>complies with the requirements of the Ammonia Europe Certification System</u>	
<b>Type of operational (spatial) unit</b>	<ul style="list-style-type: none"> <li>• Production facility, logistical facility</li> </ul>
<b>Certificate validity</b>	<ul style="list-style-type: none"> <li>• From dd/mm/yyyy (start) to dd/mm/yyyy (end) (12 months)</li> </ul>
<b>Name plate Ammonia production capacity</b>	<ul style="list-style-type: none"> <li>• kton/year</li> </ul>
<b>Certified System Scope</b>	<ul style="list-style-type: none"> <li>• As applicable:</li> <li>• Renewable electricity production unit (where applicable)</li> <li>• Electrolyser (where applicable)</li> <li>• Auxiliaries (incl. purification units)</li> <li>• Conditioning units (where applicable)</li> <li>• Conversion units (where applicable)</li> </ul>
<b>Place and date of issue</b>	<ul style="list-style-type: none"> <li>• Stamp, signature of issuing party</li> </ul>

## Annex 2 Template Product Certificate

Product Certificate				
<b>Product Certificate ID Number</b>		<b>ID number</b>		
<b>Name of Certification Scheme</b>		<i>Ammonia Europe</i>		
<b>Identification of production plant</b>				
<ul style="list-style-type: none"> <li>• <b>Production Plant ID</b></li> <li>• <b>Name</b></li> <li>• <b>Location country, city, postal code</b></li> <li>• <b>Commissioning date</b></li> <li>• <b>Installed production capacity</b></li> </ul>				
<b>Feedstock used to produce the ammonia</b>		<ul style="list-style-type: none"> <li>• <i>(Bio)Methane</i></li> <li>• <i>Hydrogen</i></li> </ul>		
<b>Primary energy from which the energy content derives</b>		<ul style="list-style-type: none"> <li>• <i>Renewable-bio</i></li> <li>• <i>Renewable-non-bio</i></li> <li>• <i>Non-renewable</i></li> </ul>		
<b>Technology pathway</b>		<i>Pathway name/code</i>		
<b>Carbon Footprint</b>	<u>The process does not include CCU</u> (check box if applicable)	<input type="checkbox"/>	<i>tCO<sub>2</sub>e/tNH<sub>3</sub></i>	
	<b>Well-to-production gate Carbon Footprint</b>			
	<u>The process includes CCU</u> (check box if applicable)	<input type="checkbox"/>	Cut-off Allocation Method	<i>tCO<sub>2</sub>e/tNH<sub>3</sub></i>
	<b>Well-to-production gate Carbon Footprint</b>		+1/-1 Allocation Method	<i>tCO<sub>2</sub>e/tNH<sub>3</sub></i>
<b>Issuing date</b>				
<b>Expiry date</b>				



## Annex 3 Template Consignment attribute declaration

Consignment attribute declaration	
Consignment attribute declaration ID Number	<i>ID number</i>
Linked Product Certificate ID Number	<i>ID number string</i>
Name of Certification Scheme	<i>Ammonia Europe</i>
Supply chain emissions	
Estimated supply chain emissions until previous step	<i>tCO<sub>2</sub>e/tNH<sub>3</sub></i>
Estimated additional emissions from last step	<i>tCO<sub>2</sub>e/tNH<sub>3</sub></i>
Estimated total additional emissions	<i>tCO<sub>2</sub>e/tNH<sub>3</sub></i>
Transaction Data	
Supplier company name and address	
Buyer company name and address	
Date of physical loading	
Place of physical loading or distribution infrastructure entry point	
Place of physical delivery or distribution infrastructure exit point	

### Annex 4 Template Attribute disclosure statement

Attribute disclosure statement			
<b>Retired Product Certificate ID Number</b>		<i>ID number string</i>	
<b>Name of Certification Scheme</b>		<i>Ammonia Europe</i>	
<b>Identification of production plant</b>			
<ul style="list-style-type: none"> <li>• <b>Production Plant ID</b></li> <li>• <b>Name</b></li> <li>• <b>Location country, city, postal code</b></li> <li>• <b>Commissioning date</b></li> <li>• <b>Installed production capacity</b></li> </ul>			
<b>Feedstock used to produce the ammonia</b>		<ul style="list-style-type: none"> <li>• <i>(Bio)Methane</i></li> <li>• <i>Hydrogen</i></li> </ul>	
<b>Primary energy from which the energy content derives</b>		<ul style="list-style-type: none"> <li>• <i>Renewable-bio</i></li> <li>• <i>Renewable-non-bio</i></li> <li>• <i>Non-renewable</i></li> </ul>	
<b>Technology pathway</b>		Pathway name/code	
<b>Average Product Carbon footprint</b>	<u>The process does not include CCU</u> (check box if applicable)	<input type="checkbox"/>	tCO2e/tNH3
	<u>The process includes CCU</u> (check box if applicable)	<input type="checkbox"/>	Cut-off Allocation Method tCO2e/tNH3
	<b>Well-to-production gate Carbon Footprint</b>		+1/-1 Allocation Method tCO2e/tNH3
Product attribute assignment method			
<b>Chain of Custody method applied</b>		<b>B&amp;C / Mass-Balance</b>	
<i>If Mass Balance is applied:</i>			
<b>Estimated additional Value Chain Carbon Footprint</b>		tCO2e/tNH3	
<b>Total Carbon Footprint</b>		tCO2e/tNH3	

