

Chain of custody

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Steel company 'low emission' steel' products



sidenor sustainable
steel
sidenor neutral
steel

HINEX
Steel



tkH₂Steel

HyECOsteel



greentec
steel

XCarb[®]

Towards carbon neutral steel

BeyondECO

HYBRIT
FOSSIL-FREE STEEL

Optemis[™] Carbon Lite

A brighter, greener future



bluemint[®] Steel

HIGH QUALITY.
LESS CO₂.



8 Green
Steel

verdex[™]
Sustainable Steel Solutions from **US**

Zeremis[®]
Carbon Lite



JGreeX



NSCarbolex[®]
Innovative action for sustainability

Pure⁺
Steel



Kobenable Steel

Zeremis[®]
Recycled

worldsteel's principles

Align the basic conditions for the use of GHG emissions reduction certificates in the steel industry.

Emphasize transparency, additionality, verification and the need to ensure no double counting occurs.

Published in April 2024 and available on worldsteel's website.



worldsteel guidelines

- Used the Japanese JISF guidelines as a starting point and aims to align with existing standards.
- Details how to apply chain of custody methods on a consistent basis within the steel industry.
- Based on consensus in the task force.
- Requirement for transparency for areas where consensus has not yet been reached.



worldsteel guidelines - 1

- Definitions of chain of custody models
 - Describes how the models are currently being applied for input materials in other sectors
 - Mass balance: where emission reductions within an organisation are linked to the product being sold, i.e. **there is a physical connection within the production chain.**
 - Book and claim: where emission reductions within an organisation are allocated to any product being sold, i.e. **a physical connection within the production chain is not necessary.**
- Scheme description



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- Calculation of carbon footprint for steel products
 - Based on existing standards e.g. ISO 20915
- Calculation of GHG emission reductions from projects
 - Based on existing standards
 - Must be net emissions
- Banking GHG emission reductions
 - Keep record of “deposits” and “withdrawals”
- Supply of steel products with certificates
 - To be used by customers to reduce their upstream scope 3 emissions
- Verification by third party of all stages



Key guidance

Organisational coverage

- Emission reductions can be banked from projects that occur within the steelmaking part of the organisation

Timeframe

- Emissions reductions can be banked once they have occurred due to the project's implementation and before being incorporated in the updated carbon footprint / environmental product declaration / LCA
- After a maximum of three years in the bank the savings expire



Key topics

- Net emissions
 - Any increase in emissions (cradle to gate) as a result of the implementation of the emission reduction project need to be included in the calculation
- Avoiding double counting
 - Key to avoid claims of greenwashing
 - Emphasized throughout the guidelines



■ Additionality

- Projects must fulfil additionality requirements
 - How the project has resulted in GHG emission reductions or removals above and beyond what would have occurred under normal operating conditions
- The following are considered to be normal operations:
 - Business as usual
 - Complying with conditions in the current operating license/permit
 - Minor reductions as a result of continuous improvements
 - Changes to production quantity or the product range

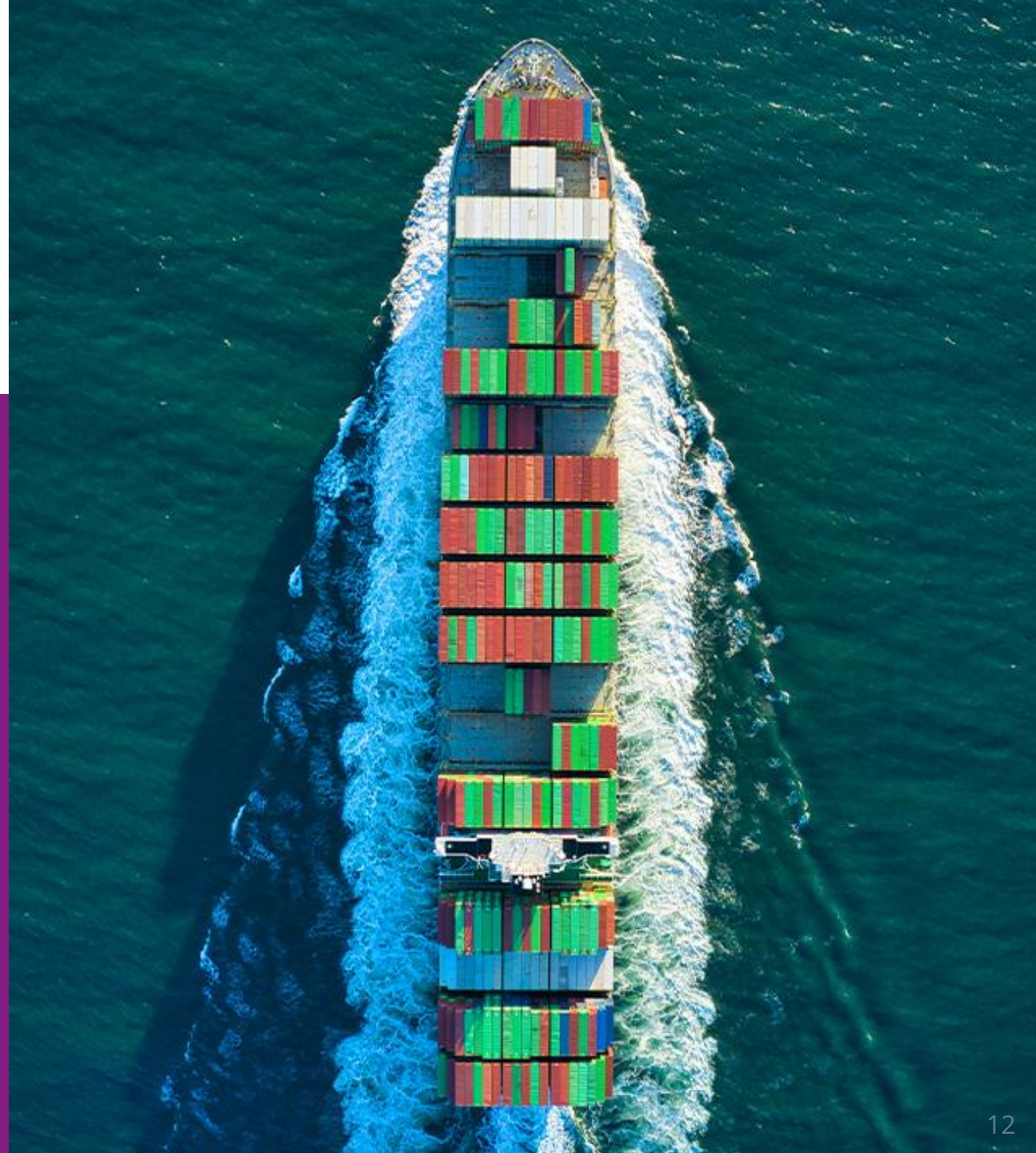
Use of certificates by customers

- To claim a reduction in their upstream emissions (e.g. at an organisational, project or product level), equivalent to the amount of the certificates purchased.
- Certificates can only pass once through the value chain.
- The certificates by themselves shall not be distributed in the market.
- Relevant standards or regulations should be followed e.g. ISO 14068-1: 2023 provides guidance on how customers can claim carbon neutrality using such types of certificates.



Next steps

- Discuss future topics:
 - Assigning GHG reductions to specific products to complement existing guidelines
 - Recycled content and how this could be applied for steel
- Participate in the development of ISO 14077
- Engage with other material sectors
- Other external engagement



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