Responsible™ Steel | standards & certification

ResponsibleSteel Test Phase Proposals and Consultation Questions on Climate Change and Greenhouse Gas Emissions Requirements

07 December 2023

Contents

Background

In September 2022, version 2.0 of the ResponsibleSteel International Standard was approved and ratified by the ResponsibleSteel membership and Board. In addition to the core requirements that steel making sites can choose to be audited against to make claims about sites being operated in a responsible manner, version 2.0 introduced additional progress level requirements in relation to the responsible sourcing of input materials (Principle 3) and climate change and greenhouse gas (GHG) emissions (Principle 10). Certification against the progress level requirements enables sites to market and sell their steel products, co-products, and by-products as ResponsibleSteel certified.

The publication of version 2.0 followed an extensive consultation and development period with stakeholders. The requirements were developed between 2020-2022, underwent two rounds of 60-day public consultation, and were approved by a double majority vote of the Business and Civil Society members of ResponsibleSteel prior to being ratified by the ResponsibleSteel Board.

The ResponsibleSteel membership and Board agreed that elements of the progress level requirements should undergo a 12-month test phase to ensure that they are fit for purpose. It was agreed that where the test phase showed changes are necessary, additional stakeholder consultation on the relevant requirements would be conducted. During the test phase, ResponsibleSteel conducted a detailed review of the basis of the ResponsibleSteel Decarbonisation Progress Levels in Principle 10 as well as receiving feedback and discussing a number of issues pertinent to the progress level requirements. The test phase officially concluded on the 30th September 2023.

This document 'ResponsibleSteel Test Phase Proposals and Consultation Questions on Climate Change and Greenhouse Gas Emissions Requirements' now presents the proposed draft revisions to Principle 10 requirements resulting from the test phase. This document is published for public consultation in the period from Thursday 7th December 2023 until Monday 22nd January 2024.

Feedback to Principle 3 requirements was also received during the test phase. However, revisions to the Principle will be consulted on separately in early 2024. Significant feedback was received towards the close of the period and raised a number of issues of particular pertinence to the specification of the materials sourcing progress levels 1 and 2. For Principle 3, ResponsibleSteel will convene a series of member multistakeholder workshops to develop recommendations on whether revisions should be made to the Standard.

In 2024, ResponsibleSteel will conduct a review of the Standard corresponding to its 5-year review cycle from the first publication of the Standard Version 1.0. Further standards development work will also be conducted to extend the application of the Standard's GHG progress level requirements to sites producing high alloy and stainless steel. ResponsibleSteel will also commence formal standards development of a downstream chain of custody standard based on physical traceability with full segregation.

About this Document

This document presents draft revisions to the progress level requirements of Principle 10 (Criteria 10.4, 10.6, and parts of 10.7) resulting from the test phase of the ResponsibleSteel International Standard Version 2.0.

Background information, the intent of proposed revisions, and specific consultation questions that we ask stakeholders to consider have been presented together on four topics. The resulting edits to the requirements are also detailed and highlighted as tracked changes in blue. Other clarifications, non-substantive and administrative changes resulting from the test phase are also to be made resulting from the test phase but following the ResponsibleSteel International Standards Development Procedures, do not require further stakeholder consultation. Where such changes overlap with the proposed draft revisions, they are highlighted as tracked changes in green.

This document has been drafted by the ResponsibleSteel Secretariat based on discussions with our Board, Members, and stakeholders since September 2022, and is released for public consultation with stakeholders. The proposals in this document have not been endorsed by the ResponsibleSteel Board or its Standards, Assurance and Claims Committee.

We are keen to hear from stakeholders whether they support our draft proposals and what their opinions are on the consultation questions posed. If stakeholders feel that there are other approaches not outlined here that would be better placed to achieve ResponsibleSteel's objectives, we very much appreciate hearing them. Stakeholders are asked to submit their feedback on the proposals and consultation questions to ResponsibleSteel by the 22nd of January 2024 via the Microsoft Form or via the Excel version of the Form provided: https://forms.office.com/e/S6QGdwAw1p

Following the consultation, the secretariat will collate and review the received feedback and determine a final proposal for a revised Principle 10. It will then seek the approval of the ResponsibleSteel Board to make an Urgent Revision to the Standard following the Urgent Revision Mechanisms specified in the ResponsibleSteel International Standards Development Procedures (v3.0). Feedback to provisional interpretations will also be reviewed and interpretations finalized by a decision of the ResponsibleSteel Standards, Assurance and Claims Committee (a Board committee with delegated authorities from the Board).

Once revisions to Principle 3 and 10 are finalized, they will be incorporated into a version 2.1 of the ResponsibleSteel International Standard in Spring of 2024 with a defined effective date. Requirements for core certification are not proposed for revision. The revised progress level requirements will be able to be applied retrospectively to audits that have already been completed. There is therefore no disadvantage to seeking progress level certification before the finalization of the revisions.

If you have any questions on the proposed requirements, please contact:
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Proposals for Revisions to Principle 10

Criterion 10.4: Proposal to include credit for the recovery of waste heat for power and steam generation

Proposal
The secretariat has drafted revisions to the determination of the GHG emissions of the site for the purpose of reporting the crude steel GHG emissions intensity (Criterion 10.4) to enable crediting of the generation of power and steam resulting from the recovery of waste heat.

Discussion
The Standard version 2.0 does not describe treatment of steam and power generated from recovered waste heat of process gases from the production of crude steel.

Waste heat recovery can result in energy efficiency and the reduction of GHG emissions resulting from steelmaking[1]. There is significant potential for waste heat recovery during the steelmaking process across production technologies and some plants implement waste heat recovery systems. Waste heat can be recovered from process gas heat during crude steel production.

The ResponsibleSteel Standard should incentivize actions and investments that reduce system level GHG emissions through their recognition in the ResponsibleSteel crude steel GHG emissions intensity performance measure.

Where waste heat is recovered and utilized on-site upstream of crude steel production, its use reduces the site's GHG emissions by the displacement of the energy need (as scope 1, 2 or 3 emissions). No further reduction of GHG emissions should be applicable.
Where waste heat is recovered and utilized on- or off-site, downstream of crude steel production, the site should be allocated a GHG emissions credit to recognize the system level reduction of GHG emissions.

Allocating a credit for the utilisation of waste heat for either power generation (such as in a Top-Pressure Recovery Turbine) or steam generation (such as through Coke Dry Quenching) would be consistent with the approach taken to the utilization of process gases for power generation specified in 10.4.7.d.

Consultation Question(s)

- Criterion 10.4, 10.4.7.d: Do you support the inclusion of a credit for the utilisation of recovered waste heat?

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- Criterion 10.4, 10.4.7.d: Whatever your level of support or disagreement with the proposal, do you have any comments on its wording?

Draft changes to requirements

The secretariat proposes to add to 10.4.7 requirements on the crediting of steam and power generated from recovered waste heat generated in crude steel production.

Changes to 10.4.4 and 10.4.7.d:

10.4.4.a) Imported electricity […]

Imported electricity that is used upstream of the production of crude steel at the site and that has been generated from the use of the process gases or waste heat for production of crude steel at the site is excluded from the determination of the site's energy indirect (Scope 2) GHG emissions for the purpose of determining the ResponsibleSteel crude steel GHG emissions intensity for the site.

Guidance (10.4.4.a) The exclusion of imported electricity generated from the use of the site's process gases or waste heat and used upstream of the production of crude steel ~~is excluded~~ ensures that the utilisation of process gas and waste heat for power generation is recognised even if the energy is generated off site and is re-imported. See 10.4.7.d.i for further details on the GHG accounting of process gas used for power generation.

10.4.7.d) Credit for the use of process gas and waste heat for power and steam generation

i. Where process gas is captured and subsequently utilised either on- or off-site for the generation of power, and/or where waste heat is recovered and utilized either on- or off-site for the generation of power (e.g. Top-Pressure Recovery Turbine), the captured process gas baseline GHG emissions for the site is reduced by the allocation of a GHG emissions credit on the following basis:

- *The amount of power generated from the use of process gases is recorded in MWh (= A MWh).*
- *If primary data for the amount of power generated is not available, it may be estimated using the current worldsteel default value for the amount of process gas required to generate 1 MWh of power.*
- *The amount of power generated from the use of waste heat is recorded in MWh (= B MWh)*
- *If primary data for the amount of power generated is not available, it may be estimated using the current worldsteel default value for the amount of waste heat required to generate 1 MWh of power.*
- *The amount of power used by the site upstream of crude steel production is recorded in MWh (= C~~B~~ MWh).*

- *The amount of power used by the site upstream of crude steel production (C ~~B~~) is deducted from the total amount of power generated from the utilisation of process gases and the utilisation of waste heat (A plus B).*
- *The site is allocated a GHG emissions credit equal to (A plus B minus C) multiplied by the most recent global grid intensity (CO_2e/MWh) as determined by the IEA*

Guidance (10.4.7.d.i) Credit for the use of process gas and waste heat for power generation:

- *Where electricity or steam is generated on-site and used upstream of the production of crude steel this results in a reduction of the quantity of imported energy, and a consequent reduction in the site's upstream indirect (Scope 2) GHG emissions. Where electricity or steam is generated from the use of the site's process gases off-site and is re-imported, the upstream indirect (Scope 2) emissions for this imported energy is excluded from the determination of the site's upstream indirect (Scope 2) GHG emissions under 10.4.4.a.*
- *The most up-to-date worldsteel default values must be used. As of December 2023 ~~June 2022~~ the worldsteel default value is that 9.8 GJ ~~of process gas~~ generates 1 MWh of power, equivalent to a 37% conversion efficiency. worldsteel default values for the Energy Equivalent Value of process gases and waste heat can be used in the estimation of energy generated by process gases and waste heat.*
- *Where process gases and waste heat are utilized to generate steam, the amount of power generated can be calculated by converting steam to electricity using worldsteel's Energy Equivalent Value for steam and electricity. As of December 2023, the worldsteel Energy Equivalent value for steam is 3.800 GJ/t steam. This results in 2.58 tonnes of steam being equivalent to 1 MWh. The most up-to-date values must be used.*

Criterion 10.6: Proposal to Revise the Decarbonisation Progress Level Specifications

Proposal

The secretariat proposes to revise the decarbonisation progress level 1 specification to correspond with the recommendations from the progress level review project. Levels 2 and 3 would also be revised to provide equal steps between progress levels 1 and 4.

This results in raising the progress level 1 specification at 100% scrap to 500kgs CO2e / tonne crude steel while retaining the current positioning at 0% scrap of 2.80 tonnes CO2e / tonne crude steel.

Based on these revisions, the secretariat estimates that:

- ~50% of steelmaking sites with less than 20% scrap as a share of metallics input will be below the progress level 1 threshold based on 2021 data.
- ~62% of steelmaking sites with more than 80% scrap as a share of metallics input will be below the progress level 1 threshold based on 2021 data.

The secretariat proposes that these thresholds optimise incentives to reduce the steel sector's global GHG emissions at the same time as incentivising scrap use.

Discussion

ResponsibleSteel received a variety of feedback relating to the specification of scrap-variable decarbonisation progress levels on the basis of the GHG emissions intensity of crude steel production. The current policy specification of the progress level 1 is "aiming to ensure that 50% of sites are below the threshold, based on 2020 data, for both high and low proportions of scrap input, but with a slightly shallower gradient in favour of scrap". Some feedback can be characterised as a conceptual rejection of the approach. Other feedback related to the quantitative application of the policy specification.

Over a period of 9-months in 2023, ResponsibleSteel conducted an in-depth analysis and review of the data used as the basis for applying the policy. In addition, the policy position itself was reviewed to ensure that it is well designed to drive decarbonisation of the steel sector, and to ensure that it does not unintentionally disincentivise the use of scrap. This in-depth analysis was undertaken in discussion with 6 steelmakers who shared site level data for 35 individual steelmaking sites - ArcelorMittal, BlueScope, Özkan Steel, Tata Steel, US Steel, voestalpine. The consultancy CRU, whose dataset of global steelmaking sites provided the basis for the progress levels specified in Version 2.0 of the Standard, shared access to their model data with the ResponsibleSteel secretariat for the project. The empirical comparison of steelmaker data with the basis of the progress level specifications would not have been possible without the support of the participating steelmakers and CRU, including their extensive efforts and discussions to understand differences between the two.

The outcomes of the review were (1) that the data used as the basis for the progress level specification can be improved to bring it into closer alignment with the accounting rules specified in Criteria 10.4 and 10.6 and to account for differences between real and modelled data; (2) that the current policy specification should not be changed, but a more quantitative indication of the implications of specifying a 'slightly shallower gradient' may be

provided; and (3) that the specification of level 1 should be changed to reflect improvements to the underlying data.

The revisions proposed to Principle 10 in this consultation represent an update to the specification of the Decarbonisation Progress Level 1 which has implications for the specification of Progress Levels 2 and 3 but not level 4.

- Progress Level 4 remains aligned with the IEA's proposed threshold for 'near zero emission production' of steel;
- Progress Levels 2 and 3 provide regular intervals of progress between Levels 1 and 4.

The revisions proposed to Progress Level 1 are in order to better apply the policy specification developed through ResponsibleSteel's multistakeholder standards development process over the course of 2020-2022 to guide the determination of the threshold. As stated, the policy remains unchanged.

For further information on the findings and recommendations of the project, please refer to the separately provided document "GHG Threshold Review: Findings and Recommendations".

Consultation Question(s)

- Criterion 10.6, 10.6.3.b-c: Do you support the proposed change to the progress level 1 specification?
- Criterion 10.6, 10.6.3.b-c: If not, on what technical basis do you propose another threshold?
- Criterion 10.6, 10.6.3.b-c: Do you have any other comments on the revisions to the progress level specifications?

Draft changes to requirements

The changes that would be made to Criterion 10.6 on the requirements of 10.6.3.b and 10.6.3.c. are highlighted in blue. Non-substantive changes to wording resulting from the development of the ResponsibleSteel programme are also highlighted in green.

10.6.3.b). The GHG emissions intensity (metric tonnes of CO_2 equivalent/ metric tonne crude steel) of the crude steel produced at the site is below the ResponsibleSteel ~~basic~~ decarbonisation progress level 1~~threshold level of performance~~ as specified for in accordance with the formula:

$$y < 2.8 - 2.3~~45~~ (x)$$

Where:

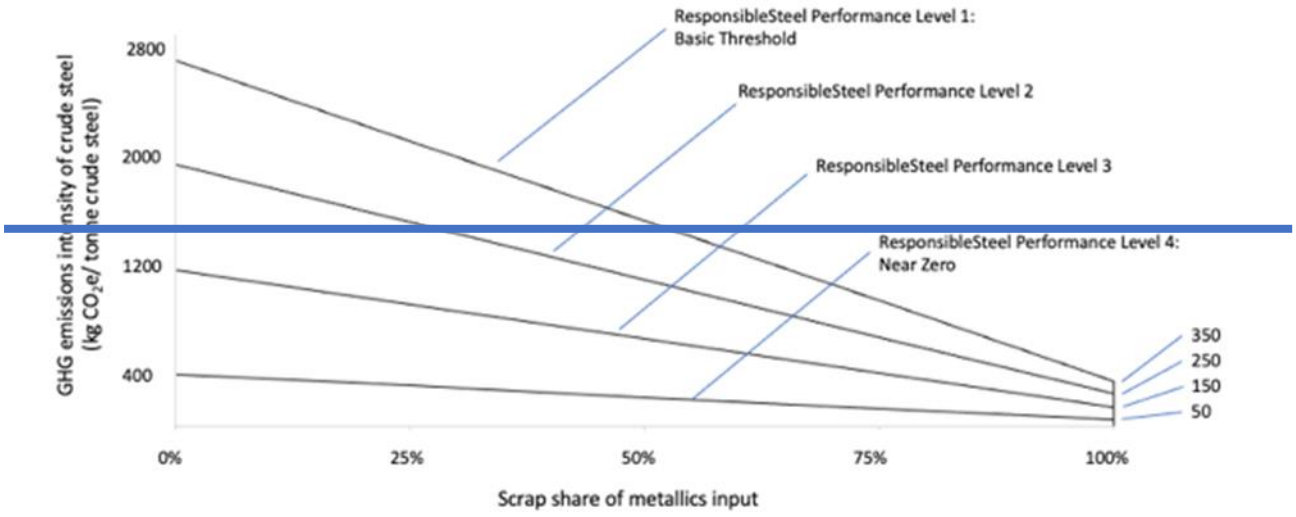
y = the determined GHG emissions intensity for crude steel production (tonne CO2 e/ tonne crude steel) at the site

x = the proportion of scrap used as an input material for crude steel production at the site, specified as the percentage of the total metallics input

10.6.3.c) the ResponsibleSteel GHG emissions intensity for crude steel production (tonne CO_2e/ tonne crude steel) (y) has been verified as being below the applicable ResponsibleSteel ~~performance~~ decarbonisation progress ~~threshold~~ level 1 for the proportion of scrap used at the site as input material (x), according to the values of (a) and (b) shown in the table below and the formula:

$$y < a - b\,(x)$$

	a: ResponsibleSteel crude steel GHG emissions intensity performance using 0% scrap as input (tonne CO_2 e/ tonne crude steel)	*b: gradient*	*ResponsibleSteel crude steel GHG emissions intensity performance using 100% scrap as input (tonne CO_2 e/ tonne crude steel)*
ResponsibleSteel ~~basic level 1 threshold~~ decarbonisation progress level 1	*2.80*	*~~2.45~~ 2.30*	*~~0.35~~ 0.50*
ResponsibleSteel ~~Performance Level 2 threshold~~ decarbonisation progress level 2	*2.00*	*~~1.75~~ 1.65*	*~~0.25~~ 0.35*
ResponsibleSteel ~~Performance Level 3 threshold~~ decarbonisation progress level 3	*1.20*	*~~1.05~~ 1.00*	*~~0.15~~ 0.20*
ResponsibleSteel ~~Performance level 4 threshold~~ decarbonisation progress level 4	*0.40*	*0.35*	*0.05*



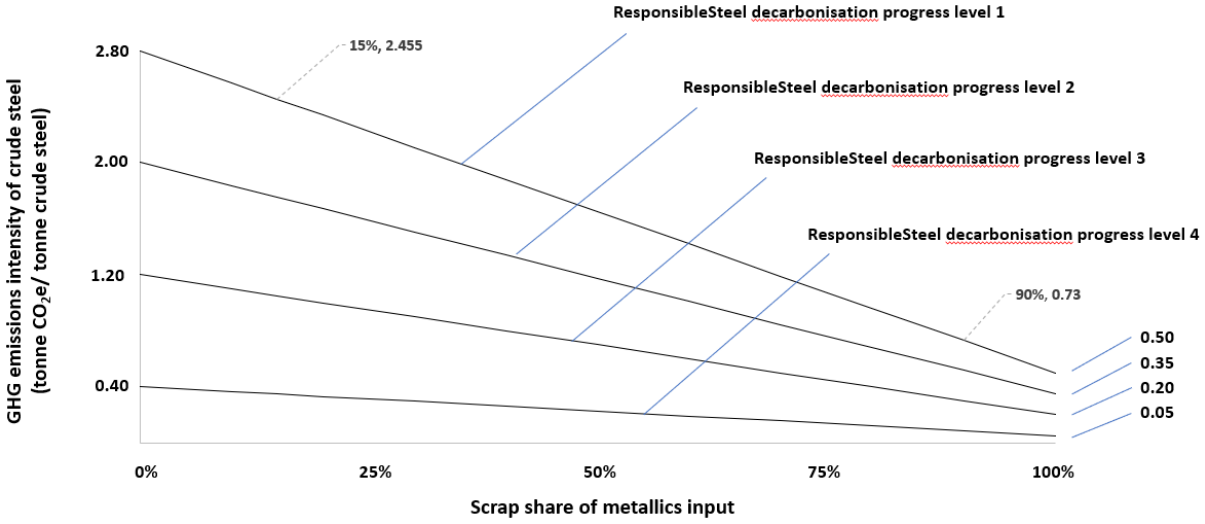


Figure 1. Illustration of the four ~~performance~~ ResponsibleSteel decarbonisation progress levels for crude steel GHG emissions intensity.

Criteria 10.6/10.7: Proposal to include the determination and reporting of GHG emissions to hot rolling

Proposal
The secretariat proposes to include requirements for sites wishing to market or sell steel products, by-products, and co-products as ResponsibleSteel certified (i.e. within the progress level requirements) to determine and publicly report the GHG emissions intensity of hot rolled steel production in addition to the crude steel determination.

Discussion

At an international scale, there have been recent calls to drive harmonisation and interoperability between GHG emissions measurement standards and methodologies. For example, at COP28, the Steel Standards Principles were launched with the endorsement of 36 key steel producers, industry associations, standard setting bodies, international organisations and initiatives to call for establishing common methodologies for measuring greenhouse gas emissions within the iron and steel sector, in order to accelerate the near-zero transition.

Contributing to establishing such methodologies will therefore contribute to ResponsibleSteel's strategic mission to "drive the production of net zero steel globally that is both environmentally and socially responsible" and its vision to "maxisimise steel's contribution to a sustainable society".

One topic to which approaches between measurement methodologies differ is the end point of the system boundary. ResponsibleSteel uses a crude steel end point, defined in 10.4.2, for the purposes of determining the emissions intensity of crude steel production at the site and the assessment of a decarbonisation progress level. Other proposals have used hot rolled steel which includes the processes upstream of crude steel and also hot rolling.

The secretariat proposes to include requirements to determine and report emissions to hot rolled steel for progress level certification, where sites will already be applying criterion 10.4 for the determination of crude steel emissions intensity. This is intended to develop data around the differences between crude steel emissions and hot rolled steel emissions and to provide a basis for future interoperability between measurement methodologies. It will enable a better understanding of the differences. However, between the hot rolled steel intensity determined under ResponsibleSteel certification and other programmes may still differ in other aspects of the system boundary and/or accounting rules. They would not be directly comparable.

It is noted that introducing these requirements introduces a further burden on steelmakers to produce this data and it would not have an implication on the achievement of different decarbonisation progress levels, which remain based on a cradle to crude steel system boundary.

For these reasons, the secretariat is proposing relatively simple requirements around the determination of the emissions to hot rolled steel – that it would be the site level determination under 10.4 plus the direct, energy indirect, and if significant, additional upstream indirect emissions relating to hot rolling.

The secretariat notes that the GHG emissions accounting rules for carbon capture and utilisation or storage for process gases or their constituents and the proposed rules for the utilisation of waste heat specified in 10.4.7 are specific to a crude steel boundary. It is not proposed to adjust these for the purposes of the hot rolled steel determination due to the additional complexity incurred and because the intent is to provide an indication of the differences between crude steel and hot rolled steel as emissions boundaries, rather than to produce internationally consistent and comparable GHG accounting rules for the GHG emissions intensity of hot rolled steel production. Not requiring recalculation of GHG emissions relating to 10.4.7 retains simplicity in the Standard and avoids creating an unnecessary burden on steelmakers.

The secretariat also proposes that changes are made to 10.7.2 relating to the reporting of the GHG emissions intensity of crude steel production of sites to include requirements to also report the GHG emissions intensity of hot rolled steel production of sites.

Consultation Question(s)

- Criterion 10.6, 10.6.5: Do you support the proposal to determine the GHG emissions intensity of hot rolled steel for sites wishing to market or sell steel products, by-products, and co-products as ResponsibleSteel certified?
- Criterion 10.6, 10.6.5: Whatever your level of support or disagreement with the proposal, do you have any comments on its wording?
- Criterion 10.7, 10.7.2: Do you support the proposal to publicly report the GHG emissions intensity of hot rolled steel for sites wishing to market or sell steel products, by-products, and co-products as ResponsibleSteel certified?
- Criterion 10.7, 10.7.2: Whatever your level of support or disagreement with the proposal, do you have any comments on its wording?
- Do you have any other comments regarding the proposals to determine and publicly report the GHG emissions intensity of hot rolled steel?

Draft changes to requirements

A new 10.6.5 requirement for the determination as well as changes to 10.7.2 for reporting.

10.6.5 Determination of the GHG emissions intensity of hot rolled steel for the purposes of reporting.

a) The site determines the site-level GHG emissions for the production of hot rolled steel.

b) The determination includes the scope 1 and scope 2 GHG emissions for the processing of crude steel to hot rolled steel at the site calculated in accordance with the requirements of an applicable, recognised international and/or regional standard in addition to the GHG emissions associated with its crude steel production in accordance with the requirements specified in Criterion 10.4.

c) The site measures and records on a consistent basis:

- *Its annual production of hot rolled steel (saleable tonnnes).*

- *The GHG emissions (tonnes CO_2e) associated with its hot rolled steel production in accordance with 10.6.5.a and 10.6.5.b.*

d) *These data are collated and recorded for the site's previous year of operation.*

e) *The site calculates and records the hot rolled steel emissions intensity performance of the site in accordance with the equation:*

Hot rolled steel emissions intensity performance (tonnes CO_2e/tonne) = total GHG emissions for the previous year of operation / saleable tonnes of hot rolled steel produced in the previous year of operation (tonne)

Guidance (10.6.5.b) For further information on recognised international and/or regional standards for this purpose see Criterion 10.3.

Guidance (10.6.5.b) If a site determines determines the carbon footprint of hot rolled steel in accordance with the requirements of 10.6.4, the same data may be applied for 10.6.5.b.

Guidance (10.6.5.b) The GHG emissions associated with further downstream processing, such as relating to galvanization or cold rolling, should be excluded from the determination.

Guidance (10.6.5.d) The site-specific data must be of the same data year as the year defined and used for 10.6.1. See guidance to 10.6.1.b for further information on site-specific data years.

10.7.2 Crude steel and hot rolled steel GHG emissions intensity performance

10.7.2.a The site has collated the following information for each site (including for individual sites in a group, if applicable, as specified under 10.7.2.b) for submission to the ResponsibleSteel Secretariat: [...]

v. the hot rolled steel GHG emissions intensity performance of the site (metric tonnes of CO2e/metric tonne hot rolled steel), as determined in conformity with the requirements of 10.6.

Corresponding edits to guidance to include hot rolled steel determinations in publications by ResponsibleSteel to the website.

Annex 11: Proposal to revise the Replacement Value for non-ferrous metal and ferro-alloy additives

Proposal
The secretariat proposes to revise the replacement value for non-ferrous metal and ferro-alloy additives from the progress level 1 value at 0% iron ore (2.8 tCO_2e/t) to the value for Cold iron, generic (2.623 tCO_2e/t).

Discussion

During the development of the ResponsibleSteel International Standard Version 2.0, an approach to use a replacement value for the upstream embodied GHG emissions relating to the extraction and processing of non-ferrous metal and ferro-alloy input materials was adopted. This corrected for the exclusion of such emissions in the CRU data which formed the basis for determining the decarbonisation progress level 1, while also ensuring no disadvantaging of sites that use a higher than average proportion of non-ferrous metal inputs when compared with sites using lower than average proportions of these materials.

In this approach, non-ferrous metallic inputs are treated as if they were crude steel made from iron ore, and are assigned a standardised upstream embodied GHG emission value on that basis. The assigned upstream embodied GHG emissions value was equal to the ResponsibleSteel GHG emissions intensity decarbonisation progrses level for the production of crude steel from 100% iron ore. The same value is assigned for all non-ferrous metal or ferro-alloy inputs, as specified in guidance to requirement 10.4.5.b and in Table A1 of Annex 11, Non-ferrous metal and ferro-alloy additives replacement value,

However, during the review of the decarbonisation progress levels, analysis suggested that treating the upstream emissions associated with non-ferrous metal or ferro-alloy inputs as the production of crude steel would disadvantage sites using a higher than average proportion of these materials as inputs. Though increasing non-ferrous metal input reduces a site's scrap share of metallics input, and therefore results in a higher threshold value, the increase in emissions is greater than the corresponding increase in threshold value. Moreover, treating the upstream (scope 3) emissions as if they were crude steel was found to be excessive, as the production of crude steel also includes scope 1 and 2 emissions. If a hypothetical plant used only 100% non-ferrous metals in production, then its scope 3 emissions alone would be the progress level value at 0% scrap (2.8 tonnes CO2e/ tonne crude steel).

Adjusting the replacement value to mirror the default embodied GHG emissions value for 'Cold iron, generic' is proposed as a better reflection of the upstream emissions relating to steel production. It should better achieve the intent to compare sites using relatively low proportions of non-ferrous inputs on a like-for-like basis with sites using relatively high proportions of these materials, without their GHG emissions intensity being distorted by the inclusion of the upstream embodied GHG emissions assocaited with the non-ferrous inputs.

Note that currently sites are not permitted to market or sell steels that contain more than 8% alloy content as ResponsibleSteel certified until technical specifications and

decarbonisation progress levels for high alloy and stainless steels have been finalised and approved. ResponsibleSteel intends to develop these specifications in 2024.

Consultation Question(s)

- Annex 11, Table A1: Do you support the proposal to revise the replacement value from the GHG emissions intensity of the decarbonisation progress level 1 at 0% scrap share of metallics input to the default embodied GHG value of 'Cold iron, generic'?
- Annex 11, Table A1: If not, on what technical basis do you propose another approach or replacement value?
- Annex 11, Table A1: Do you have any other comments on the revisions to the replacement value?

Draft changes to requirements

The resulting changes to the text of the ResponsibleSteel International Standard Version 2.0 would be:

- Edits to guidance to 10.4.5.b and 10.6.4;
- Edits to Annex 11 for ResponsibleSteel default embodied GHG values.

(Guidance: 10.4.5.b) Non-ferrous metals and ferro-alloys

A default value equivalent to the ResponsibleSteel ~~level 1 performance threshold value for the primary production of steel from iron ore~~ default embodied GHG value for 'Cold iron, generic' (currently ~~2.8~~ 2.623 tonnes CO2 e/ tonne ~~crude steel~~) shall be used as a replacement value for the determination of the upstream indirect (Scope 3) GHG emissions for all non-ferrous metal and ferro-alloy additives, as specified in Table A1. If primary data shows that the upstream embodied GHG value for a non-ferrous metal or ferro-alloy is higher than the replacement value, the replacement value shall still be used. If primary data shows that the upstream embodied GHG value for a non-ferrous metal or ferro-alloy is lower than the replacement value, the lower value may be used. See Guidance to 10.6.4.c for an explanation.

(Guidance: 10.6.3) Sites producing high alloy and stainless steel […]

The replacement value is equivalent to the ResponsibleSteel default embodied GHG value for 'Cold iron, generic' ~~level 1 performance threshold value for the primary production of steel from iron ore,~~ as specified in Table A1.

Annex 11: ResponsibleSteel default embodied GHG values […]

	Unit	***Original data source***	***Basis for default (see notes)***	***Default embodied GHG value (tCO_2e/unit)***
Alloys and metallic additives				

A replacement value equivalent to the ResponsibleSteel default embodied GHG value for 'Cold iron, generic' ~~level 1 performance threshold value for the primary production of steel from iron ore~~ shall be used for the determination of the upstream indirect (Scope 3) GHG emissions for all non-ferrous metal and ferro-alloy additives.				
• *Non-ferrous metal and ferro-alloy additives replacement value*	*t*	*~~ResponsibleSteel level 1 performance threshold value for the primary production of steel~~ ResponsibleSteel default embodied GHG value for 'Cold iron, generic'*	*NA*	*~~2.800~~ 2.623*