



ResponsibleSteel GHG Standard: Proposals (2022-02-10)

10th February 2022, 8.00am – 9.30am (GMT)

10th February 2022, 4.00pm – 5.30pm (GMT)

Antitrust statement

ResponsibleSteel™ is committed to complying with all relevant antitrust and competition laws and regulations. Failure to abide by these laws and regulations can potentially have extremely serious consequences for ResponsibleSteel™ and its members, including heavy fines and, in some jurisdictions, imprisonment for individuals. ResponsibleSteel™ has therefore adopted an Antitrust Policy, compliance with which is a condition of ResponsibleSteel™ membership and participation. You are asked to have due regard for this Policy today and indeed in respect of all other ResponsibleSteel™ activities.

<https://www.responsiblesteel.org/wp-content/uploads/2018/09/ResponsibleSteelAntitrustPolicy2018-09-20.pdf>

A. Determination of upstream Scope 3 emissions

- **General approach:**
 - Steelmakers must have a system in place to determine their upstream Scope 3 emissions, including the emissions associated with the upstream transportation of their input materials
 - The list of input materials that must be considered will be based on the worldsteel CO2 data collection methodology (version 10), Appendix 3
 - Steelmakers must seek primary data for the upstream emissions associated with their input materials
 - In absence of acceptable primary data the ResponsibleSteel default upstream emission factors must be used
- **Acceptable primary data:**
 - Data may be provided as a weighted average for multiple sites of origin, up to the level of a supplier's country-specific average
 - The data must include an estimation of the Scope 1, Scope 2 and upstream Scope 3 emissions from mine to the point of sale
 - The data must include an estimation of the emissions associated with transportation from the mine to the point of sale
 - The GHG accounting standard or standards that have been used must be disclosed with the data
 - The level of assurance must be disclosed
- **Transportation**
 - The steelmaker must include an estimate of the emissions associated with transportation of the material from the point of purchase to the steelmaker's gate

B. Determination of upstream Scope 3 emissions

- ResponsibleSteel default upstream emission factors:
 - Will be set at best estimate of top decile of global distribution of emissions for the input material
 - Data will be sought from relevant associations, agencies, research organisations, etc – references to be provided
- Option to phase in the use of ‘top decile’ default emission factors
 - Proposal is to require the use of ‘top decile’ default emission factors with immediate effect
 - An alternative option is to phase in their use – e.g. for an initial period of 3 years to allow steelmakers to use global average emission factors as the basis for the estimate of upstream scope 3 emissions

C. Charcoal

- For certified steel:
 - 100% of charcoal to be sourced from FSC-certified plantations
 - Default upstream emission factor is zero
 - Direct Scope 1 emissions when charcoal is used to be included in full

D. Pig iron, DRI, GRI, HBI

- Proposal is that pig iron, DRI, GRI and HBI should be treated the same as other iron bearing input materials.
- Currently, this means:
 - Phase 1 (2022 – 2025): 80% from known supply chains, 30% in recognised ESG programme
 - Phase 2 (2026 – 2028): 90% from known supply chains, 50% in recognised ESG programme, 30% achieve minimum ESG performance
 - Phase 3 (2029 – 2031): 98% from known supply chains, 70% in recognised ESG programme, 50% achieve minimum ESG performance
- As for other iron bearing input materials, primary data is not required. It must be requested, and if it is not provided the ResponsibleSteel (top decile) default value for the relevant input material will be used

Outstanding question:

- If a steelmaking site imports steel from another site, should the steel be treated as an 'input material', or is this a different kind of issue?

E. Definition of crude steel (8.4.2.b)

Crude steel: Steel in the first solid state after melting, suitable for further processing or for sale. Synonymous with raw steel. (source: worldsteel)

Guidance: For the purpose of determining the ResponsibleSteel GHG emissions intensity for crude steel, the end point for measurement of the GHG emissions associated with crude steel production is measured at the point at which continuous casting or ingot casting has been completed, and prior to any further processing such as roughing or hot rolling.

The crude steel tonnage figure used to calculate the site's crude steel GHG emissions intensity shall be the saleable tonnage, after quality control. Saleable tonnage may also be referred to as 'financial tonnage', or 'net tonnage'. This is aligned with the definition of 'crude steel' as defined by worldsteel as being 'suitable for further processing or for sale'. There may be some variation between sites, depending on their configuration, as to the exact point at which saleable tonnage is measured. In all cases the earliest point of measurement is preferred.

Crude steel that is rejected for quality reasons before the point at which crude steel tonnage is determined and which is returned to the steelmaking process will not be considered to be 'scrap', for the purpose of determining the proportion of scrap used as an input material. Metal waste that is generated after the point of measurement of crude steel tonnage, and which is returned to the steelmaking process, would however be considered to be scrap for the purpose of defining the proportion of scrap used as an input material.

F. GHG offsets

- Offsets not included in determination of ResponsibleSteel crude steel GHG emissions intensity measure
- Offsets will need to be taken into account, subject to agreement on definitions, verification, etc, in order to define 'net zero' steel (as distinct from 'near zero')
- The current certified steel standard does not define 'net zero' or support claims of 'net zero' steel – work on this to be initiated after the current standard has been approved.

G. GHG allocation to co-products/ by-products

- Crude steel GHG emissions intensity = total (Scope 1, Scope 2 and upstream Scope 3) emissions / crude steel production
- Embodied carbon that remains within steel, slag etc and that is not emitted to the atmosphere is not included
- There is no other allocation of GHG emissions to co-products/ by products.

H. GHG allocation to intermediate products exported from the site

- Allocations to 'merchant' production do not need to be included.

I. Energy for on-site processing of crude steel

- Not included

J. Carbon Capture and Utilisation (CCU); exported energy (electricity, heat, steam); export of process gas for energy generation

- To use the worldsteel CO2 data collection methodology as starting point for further discussion in sub-group.

K. Carbon Capture and Storage (CCS)

- Operational emissions to be included
- Emissions associated with equipment (capital) not included

L. Emissions associated with exported waste

- No change

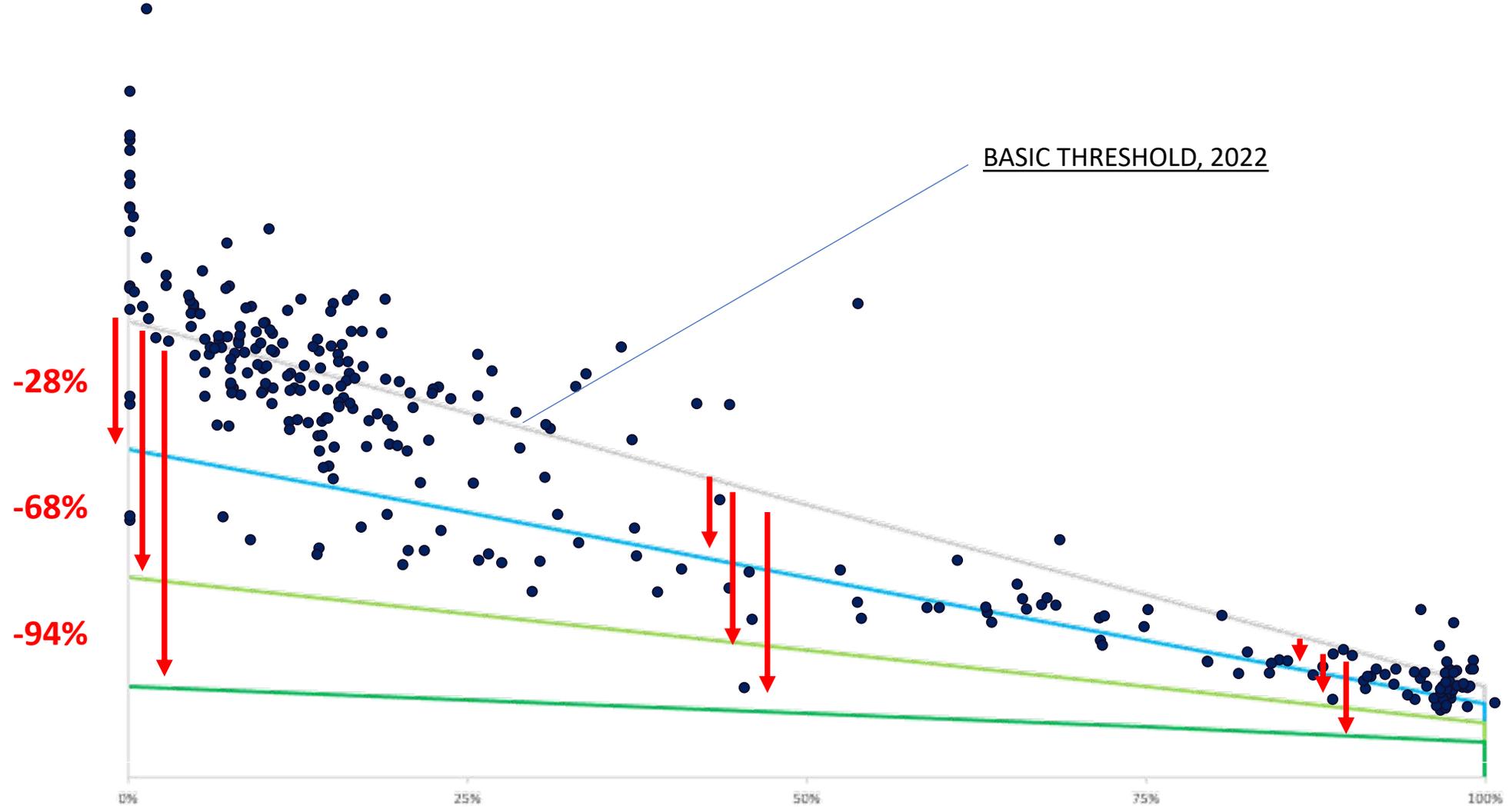
M. Downstream indirect emissions

- No change

N. ResponsibleSteel Crude Steel GHG Emissions Intensity Performance Levels (C8-6)

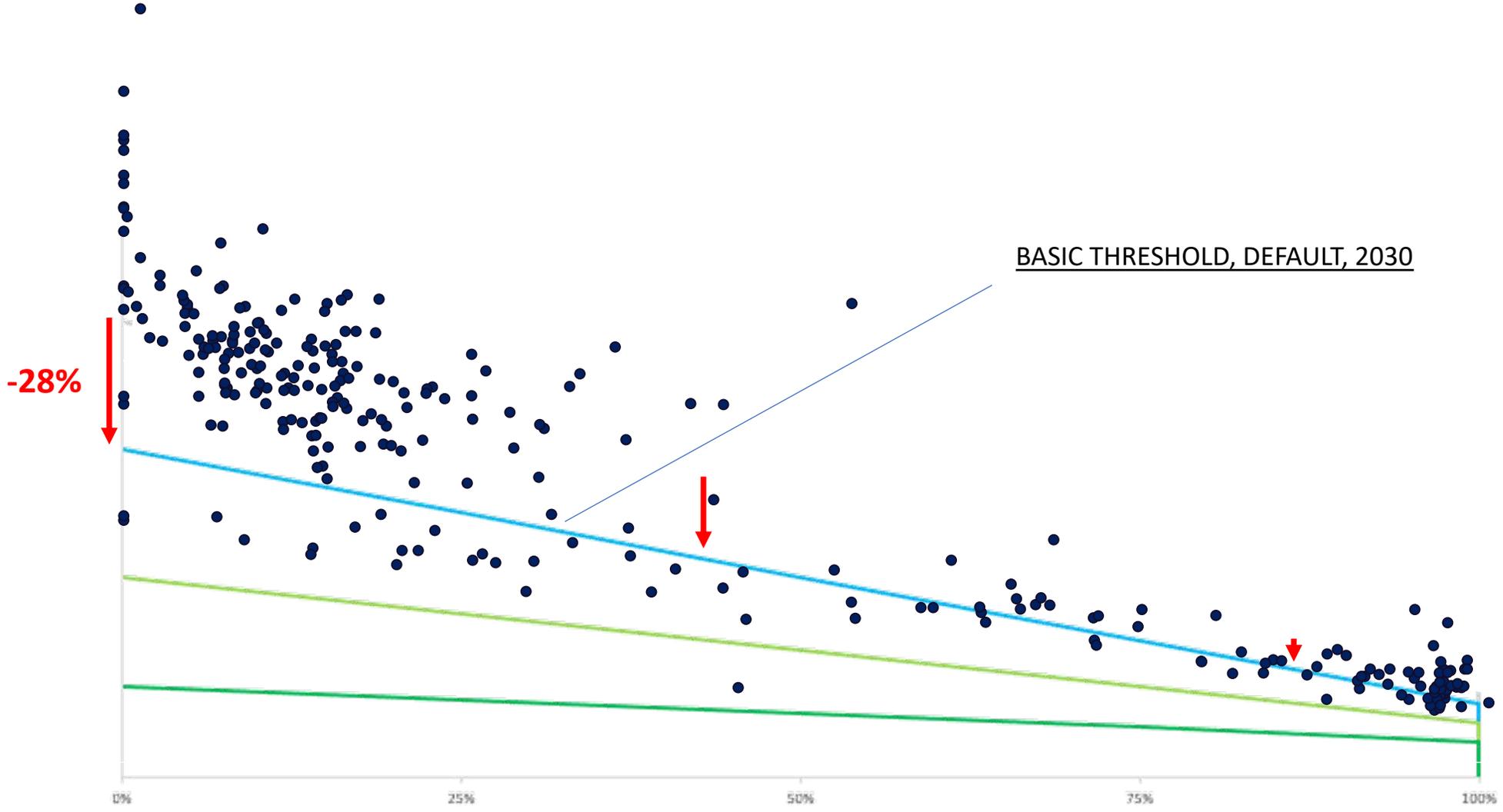
- Basic threshold to be set at current average performance, taking account of scrap, as agreed
- Thresholds to be reviewed every 5 years
- By default (i.e. unless otherwise agreed by the membership) the ‘basic threshold’ level will be reduced every 10 years *in line with the percentage reductions indicated by an agreed steel sector GHG emissions reduction pathway*, to achieve ‘near zero’ level of emissions in 2050. Options for the sectoral GHG emissions reduction pathway to be considered include: MPP-TM, NZE RMI, NZE SBTi, NZE TPI (see following slide)
- The ResponsibleSteel performance levels will be aligned with the default values for 2030, 2040 and 2050
- As a consequence, *four* performance levels will be specified, rather than three

GHG emissions intensity of crude steel (tonnes CO₂e/ tonne crude steel) →



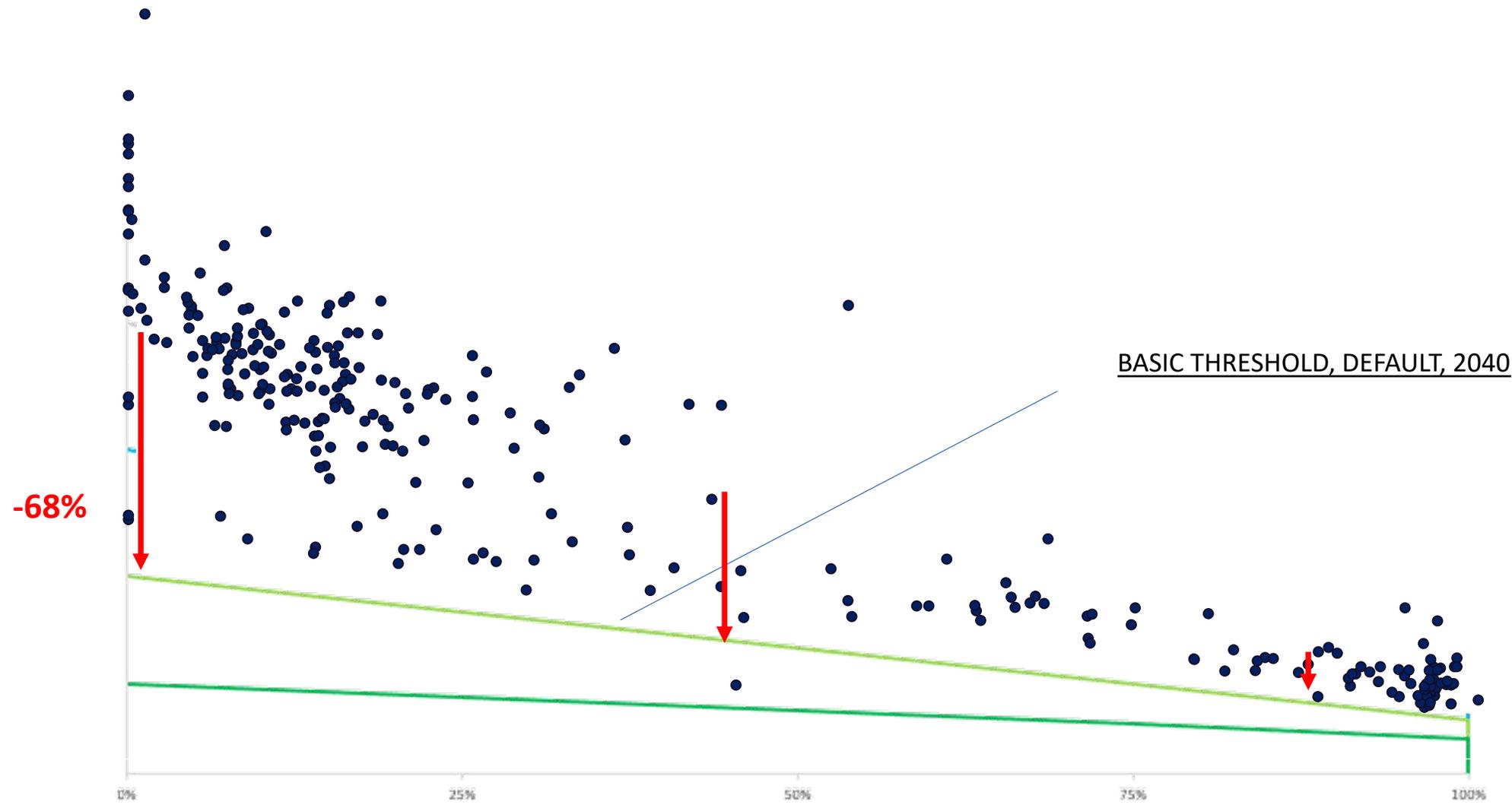
Proportion of scrap used as an input

GHG emissions intensity of crude steel (tonnes CO₂e/ tonne crude steel) →



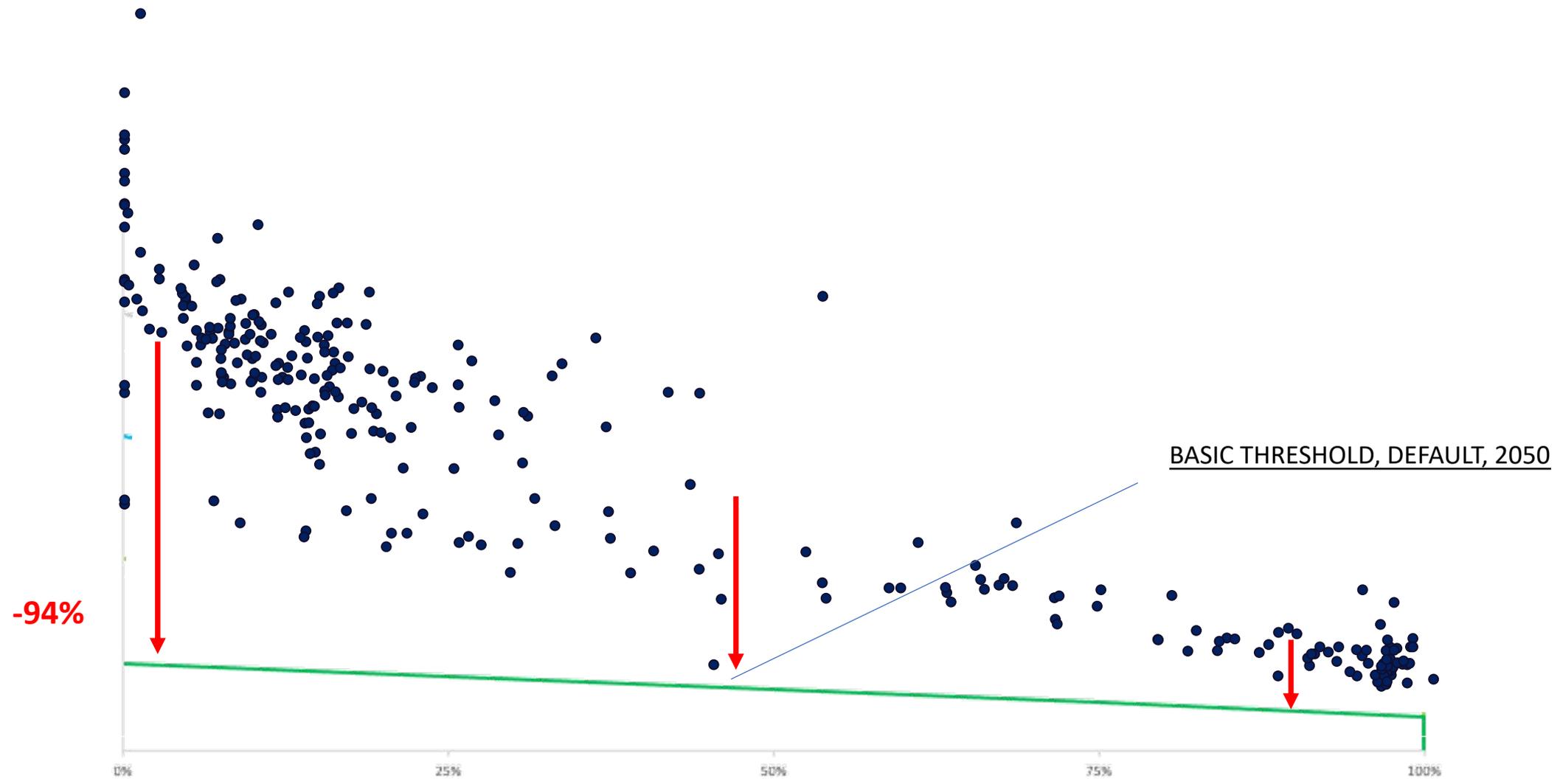
Proportion of scrap used as an input

GHG emissions intensity of crude steel (tonnes CO₂e/ tonne crude steel) →



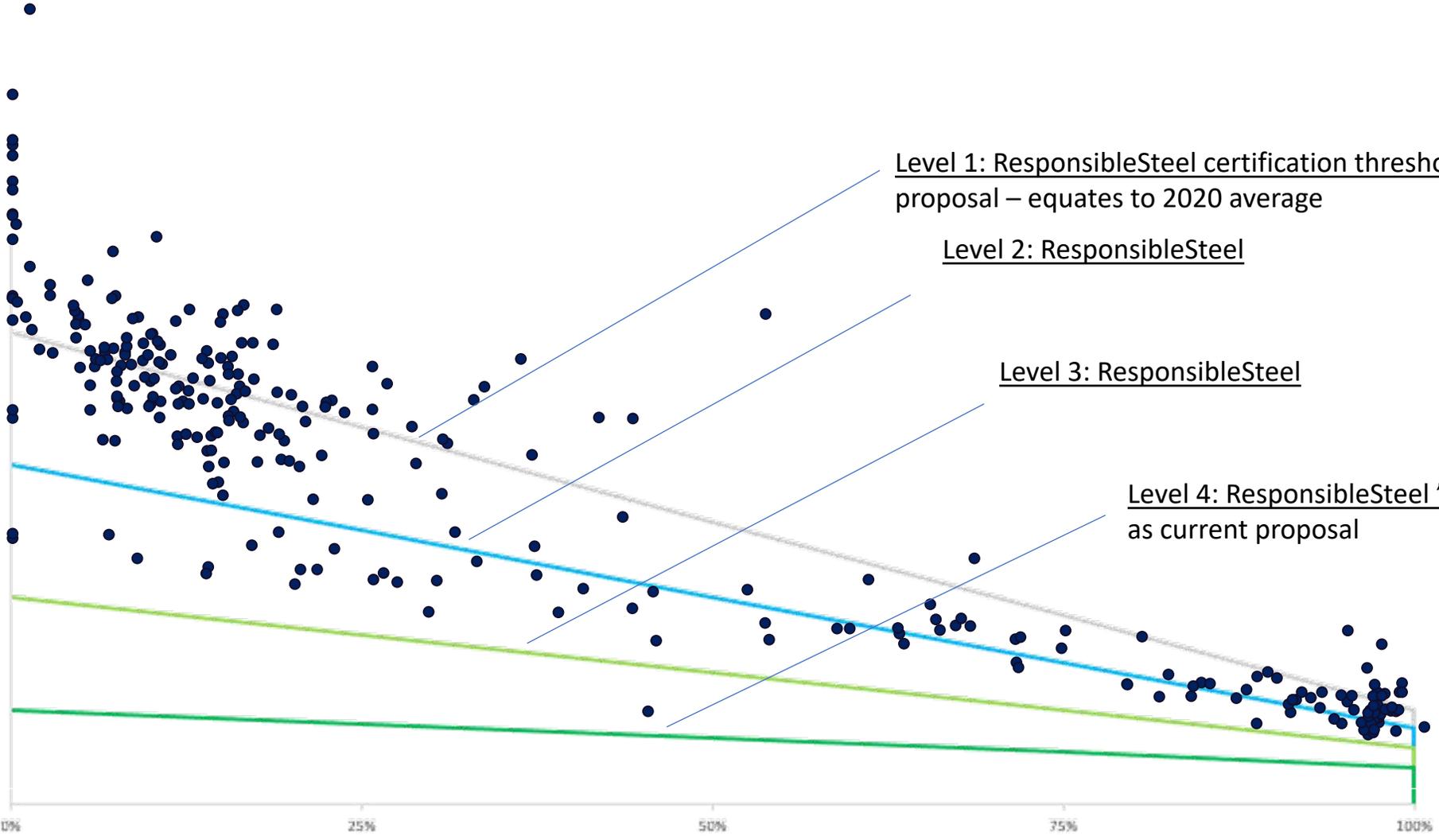
Proportion of scrap used as an input

GHG emissions intensity of crude steel (tonnes CO₂e/ tonne crude steel) →



Proportion of scrap used as an input

GHG emissions intensity of crude steel (tonnes CO₂e/ tonne crude steel) →



Proportion of scrap used as an input