Background Information on Our Environmental Claims

1. What We Mean by "Green Steel"

When we at GMH Gruppe speak of "Green Steel", we aim to highlight our contribution to mitigating the human-induced greenhouse effect. Our particular focus is on carbon dioxide (CO_2), a greenhouse gas that absorbs heat radiation in the atmosphere, thereby intensifying the greenhouse effect and contributing to global warming. In addition to carbon dioxide, other relevant greenhouse gases are produced through combustion and affect the climate to varying degrees. To make them comparable, their emissions are converted into the amount of carbon dioxide that would have the same impact on the climate. The result is referred to as a "carbon dioxide equivalent" (CO_2e). In this context, where the product itself is concerned, we refer to a product's CO_2e footprint, or Product Carbon Footprint (PCF; see below). A PCF therefore typically covers not only the CO_2 actually emitted, but the overall climate impact of all greenhouse gases included within the defined system boundaries.

Worldwide, the steel industry accounts for approximately 7% to 9% of total energy-related or human-induced CO_2e emissions. The World Steel Association, the International Energy Agency and other industry analyses have reported figures of a similar magnitude for many years. The principal reason is not primarily energy consumption, but the chemical reduction processes involved in conventional blast-furnace production of pig iron. Iron ore consists mainly of iron oxides (Fe_2O_3), from which the oxygen must be removed to produce pig iron. The pig iron is then converted into steel in a basic oxygen furnace. This process uses coke or coal with a carbon content of more than 90%, which combusts to form carbon dioxide.

Our steel production at GMH Gruppe differs fundamentally from this conventional method of producing crude steel in blast furnaces. We rely exclusively on the secondary steelmaking route for our own crude steel production: rather than producing steel from iron ore and coke or coal, we use steel scrap. We melt this scrap using electrical energy and use the molten metal to produce new crude steel. By way of background, the blast furnace/basic oxygen furnace route (primary steel production) accounts for approximately 70% of global crude steel production. The remaining 30% is produced via the electric steelmaking route (secondary steel production) [1]. Because secondary steel production does not require the reduction of iron ore, the process itself generates fewer greenhouse gas emissions.

To provide a comprehensive view, greenhouse gas accounting based on the Greenhouse Gas Protocol (GHG Protocol), the global standard, distinguishes between Scope 1, Scope 2 and Scope 3 emissions: Scope 1 covers emissions generated directly by the producing company itself. Scope 2 covers emissions generated upstream in the production of electricity, steam and heat, but attributable to the producing company's energy consumption (known as indirect emissions). For GMH Gruppe, Scope 2 is therefore particularly relevant to purchased electricity. Scope 3 additionally covers emissions arising in the upstream supply or value chain. For GMH Gruppe, Scope 3 is relevant, among other things, to purchased input materials such as alloys.

Overall, in terms of Scope 1 and Scope 2 greenhouse gas emissions, crude steel production via the electric steelmaking route generates over 80% less CO_2e than primary steel production. With respect to Scope 1 and Scope 2, we therefore refer to the crude steel we produce as Green Steel.

[1] World Steel in Figures 2026 - worldsteel.org.

Where it is not feasible to supply our downstream processing companies internally with our own crude steel, GMH Gruppe also sources additional external input material almost exclusively from the secondary steelmaking route.

In addition, with respect to Scope 1 and Scope 2, we can further reduce the CO_2e footprint of our green crude steel at the customer's request by using electricity from renewable energy sources (green electricity) and biogenic carbon from sustainable sources. Biogenic carbon is produced from biomass, meaning plants or other biological sources, rather than from fossil raw materials such as hard coal, lignite or petroleum. We therefore refer to our products manufactured in this way with reduced Scope 2 emissions and a particularly low CO_2e footprint by comparison as Green Power Steel (produced using green electricity). We refer to products that are additionally manufactured with reduced Scope 1 emissions as Green Power Premium Steel (produced using green electricity and biogenic carbon). Our use of the term "green" is based on the following calculations:

Production of crude steel (continuously cast)	**[t CO_2e / t Product]**		
	Scope 1	**Scope 2**	**Scope 1-2**
Blast furnace technology (BF/BOF) | Reference value	1,799		1,799
Electric arc furnace (EAF) | Green Steel	0,102	0,206	0,308
EAF advantage over BF/BOF			***-83%***
Electric arc furnace (EAF) | Green Power Steel	0,102	0	0,102
Green Power Steel advantage over BF/BOF			***-94%***
Electric arc furnace (EAF) | Green Power Premium Steel	0,026	0	0,026
Green Power Premium Steel advantage over BF/BOF			***-99%***

Basis of calculation:
Blast furnace technology (BF/BOF) | Reference value: Referenzanlage Integriertes Hüttenwerk | Anhang zum LESS-Regelbuch II-b abzgl. Hot rolling
Electric arc furnace (EAF) | Green Steel, Green Power Steel, Green Power Premium Steel: Externally verified GMH PCF calculation: C45 1.0503 continuously cast billet, 245 × 245 mm; data period 10/2025–08/2026

Our use of the term "green" is also based on the classification under the LESS standard. LESS stands for Low Emission Steel Standard, which is legally owned by the Brussels-based association LESS.aisbl. It is a European labelling and classification system for low-emission steel. The standard assesses steel according to its emissions intensity and scrap content and assigns it to different "low-emission" classes: from D (the lowest level), through C, B and A, to Near Zero (the highest level, for virtually emission-free steel). Class A is the highest regular class below "Near Zero". It denotes steel with very low emissions intensity and a high degree of decarbonisation. LESS assesses steel production using a cradle-to-gate approach, from raw material extraction through to the finished hot-rolled steel product.

At its Georgsmarienhütte site, GMH Gruppe is capable of producing Green Power Premium Steel with a LESS Class A rating. GMH Gruppe has therefore demonstrated its ability to produce steel at Georgsmarienhütte with particularly low CO_2e intensity in accordance with the requirements of the LESS standard.

- **Calculation of Product-Specific CO_2e Emissions (Product Carbon Footprint, or PCF)**

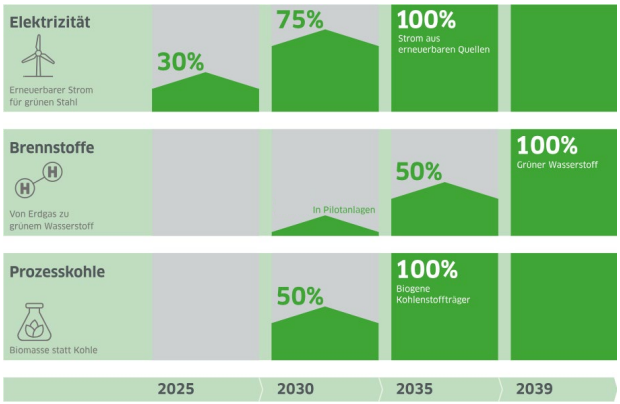
At the customer's request, several GMH Gruppe companies calculate the specific CO_2e emissions of steel products in detail as a PCF. The calculation methodology is based on international standards such as ISO 14067 and ISO 22095, as well as the Greenhouse Gas Protocol, and is performed as a partial life-cycle assessment (cradle to gate). The calculation methodology is regularly verified by independent third parties. Customers can use these figures in their own calculations and make their own climate-related claims on that basis.

The PCF of our two largest individual companies by revenue and tonnage, Georgsmarienhütte GmbH and Mannstaedt GmbH, is calculated using an automated calculation model based on product- and order-specific process, material and energy data. Calculations are performed for individual products and production orders without aggregation into product groups, thereby ensuring a high degree of accuracy. The methodology applied to the PCF calculations has been validated by an independent third party. It was confirmed that the approach used by Georgsmarienhütte GmbH and Mannstaedt GmbH complies with the relevant normative requirements.

- **Climate Targets and Transformation Measures**

GMH Gruppe has set itself the target of reducing its direct and energy-related emissions (Scopes 1 and 2) by 50% by 2030 compared with the 2019 base year. Building on this interim target, GMH Gruppe has declared its intention to reduce Scope 1 and Scope 2 emissions to near zero by 2039 and to neutralise unavoidable residual emissions.

GMH Gruppe is pursuing a clear transformation pathway to reduce its greenhouse gas emissions. The three main emissions-reduction measures are the use of green electricity, the deployment of biogenic carbon carriers and the electrification of natural-gas-based processes, with the medium-term introduction of green hydrogen as well. These measures are complemented by resource- and energy-efficiency projects. Implementation of the planned measures depends on economically viable and reliable regulatory framework conditions.



The percentages refer to the share of the low-CO_2e energy source.

As part of its climate strategy, GMH Gruppe has also defined further targets, including targets for its material Scope 3 emissions. These climate targets are currently undergoing validation by the Science Based Targets initiative (SBTi) and are expected to be published following successful validation by the end of 2026.

- **Recycling and the Circular Economy**

At its Georgsmarienhütte, Stahlwerk Bous, Schmiedewerke Gröditz, Kind & Co. and Pleissner Guss sites, GMH Gruppe produces crude steel in electric arc furnaces, using steel scrap as the principal input material. The scrap content at GMH Gruppe's steelworks is almost 100%. Pre-consumer scrap, post-consumer scrap and internal scrap are used. Through this material recycling, GMH Gruppe closes material loops.

Slag is generated as a mineral by-product of crude steel production. Following appropriate processing, it can be used as a construction material, for example in road construction. As a general principle, GMH Gruppe strives to return every waste stream generated to raw-material cycles (No Waste).

- **Use of Logos and Hashtags in an Environmental Context**

Green Steel Logo

GMH Gruppe uses the Green Steel logo as a visual representation of its low-CO_2e crude steel production based on steel scrap. The logo is also used in the context of GMH Gruppe as a whole because progress in low-CO_2e steel production is a key component of the entire Group's sustainability strategy and is being advanced across its companies. The Green Steel logo is expressly not a certification mark or quality seal. The underlying calculations and environmental information relating to Green Steel are explained transparently above.

Climate Protection Companies Logo

The "Climate Protection Company" distinction was developed as part of the Partnership for Climate Protection, Energy Efficiency and Innovation by the Federal Ministry for the Environment (BMUB), the Federal Ministry for Economic Affairs (BMWi) and the Association of German Chambers of Industry and Commerce (DIHK) to recognise companies for their outstanding commitment to climate protection. The "Climate Protection Company" logo recognises the climate-protection and energy-efficiency performance of the companies themselves; it is neither a certification nor a product label. The logo signifies the credibility of the recognised companies and is a visible indication of their membership in "Klimaschutz-Unternehmen. Die Klimaschutz- und Energieeffizienzgruppe der Deutschen Wirtschaft e.V." (Climate Protection Companies: The Climate Protection and Energy Efficiency Group of German Business).

Hashtag: #GreenSteelPioneers

GMH Gruppe uses the hashtag #GreenSteelPioneers in recruitment communications to emphasise its ambition to be a pioneer in developing and producing low-CO_2e steels via the electric steelmaking route. We put this ambition into practice: for more than 30 years, GMH Gruppe has produced steel in electric arc furnaces using almost 100% steel scrap as the principal input material. This enables us to produce crude steel with significantly lower CO_2e emissions than the conventional blast-furnace route. By extensively testing biogenic carbon carriers, we are creating the conditions needed to further reduce the CO_2e footprint of our products and replace fossil carbon carriers in our processes. We have also commissioned our first hydrogen-ready furnaces, where we are testing the use of green hydrogen as an alternative to natural gas.

Stand: 02. September 2026

In addition, through the Low Emission Steel Standard, GMH Gruppe is helping to develop transparent, uniform standards for assessing and defining low-CO_2e steels. The relevant calculation bases and supporting evidence are presented transparently above.

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