Swiss Steel Group Emissions Reporting Principles

Emmenbrücke, 29th July 2025



The GHG¹ Protocol provides the globally most commonly used system to classify emissions

Scope 2 Scope 1 INDIRECT DIRECT Scope 3 Scope 3 INDIRECT INDIRECT purchased goods and transportation and distribution purchased electricity, steam company facilities employee processing of sold products fuel and energy related leased asset use of sold vehicles end-of-life waste sold products Upstream activities Downstream activities Reporting company

Figure [1.1] Overview of GHG Protocol scopes and emissions across the value chain



The system distinguishes between Scopes 1, 2 and 3

Emissions type	Scope	Definition	Examples	
Direct emissions	Scope 1	Emissions from operations that are owned or controlled by the reporting company	Emissions from combustion in owned or controlled boilers, furnaces, vehicles, etc.; emissions from chemical production in owned or controlled process equipment	
Indirect	Scope 2	Emissions from the generation of purchased or acquired electricity, steam, heating, or cooling consumed by the reporting company	Use of purchased electricity, steam, heating, or cooling	
emissions	Scope 3	All indirect emissions (not included in scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions	Production of purchased products, transportation of purchased products, or use of sold products	



Scope 3 itself is differentiated into 15 sub-categories

#		Category	Description	
3.	.1	Purchased goods and services	Extraction, production, and transportation of goods and services purchased or acquired by the reporting company in the reporting year, not otherwise included in Categories 2 – 8	
3	.2	Capital goods	Extraction, production, and transportation of capital goods purchased or acquired by the reporting company in the reporting year	
accounted for in scope 1 or scope 2, e.g. upstream emissions of purchased fuels and electricity scope 1 or scope 2) 3.4 Upstream transportation and distribution Transportation and distribution and distribution between a company's own facilities (in vehicle reporting company)		activities (not incl. in	Extraction, production, and transportation of fuels and energy purchased or acquired by the reporting company in the reporting year, not already accounted for in scope 1 or scope 2, e.g. upstream emissions of purchased fuels and electricity, transmission and distribution losses	
		•	Transportation and distribution services purchased by the reporting company in the reporting year, incl. inbound logistics, outbound logistics (e.g., of sold products), and transportation and distribution between a company's own facilities (in vehicles and facilities not owned or controlled by the reporting company)	
			Disposal and treatment of waste generated in the reporting company's operations in the reporting year (in facilities not owned or controlled by the reporting company)	
3	.6	Business travel	Transportation of employees for business-related activities during the reporting year (in vehicles not owned or operated by the reporting company)	
3.7 Employee commuting Transportation of employees between their homes and their worksites during the reporting year (in vehicles owned or operated by the reporting company)		Employee commuting	Transportation of employees between their homes and their worksites during the reporting year (in vehicles not owned or operated by the reporting company)	
3	.8	Upstream leased assets	Operation of assets leased by the reporting company (lessee) in the reporting year and not included in scope 1 and scope 2 - reported by lessee	
3.	.9	Downstream transportation and distribution	Transportation and distribution of products sold by the reporting company in the reporting year between the reporting company's operations and the end consumer (if not paid for by the reporting company), including retail and storage (in vehicles and facilities not owned or controlled by the reporting company)	
	.10	Processing of sold products	Processing of intermediate products sold in the reporting year by downstream companies (e.g., manufacturers)	
E ţ	.11	Use of sold products	End use of goods and services sold by the reporting company in the reporting year	
ownstream 8	.12	End-of-life treatment of sold products	Waste disposal and treatment of products sold by the reporting company (in the reporting year) at the end of their life	
3.	.13	Downstream leased assets	Operation of assets owned by the reporting company (lessor) and leased to other entities in the reporting year, not included in scope 1 and scope 2 – reported by lessor	
3	.14	Franchises	Operation of franchises in the reporting year, not included in scope 1 and scope 2 - reported by franchisor	
3	.15	Investments	Operation of investments (incl. equity and debt investments and project finance) in the reporting year, not included in scope 1 or scope 2	



Source: Swiss Steel Group; Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Standard, p. 32-37: https://ghgprotocol.org/sites/default/files/standards/Corporate-Value-Chain-Accounting-Reporing-Standard 041613 2.pdf

Swiss Steel Group collects and reports its GHG¹ emissions according to a calculation manual, which applies for all sites



Swiss Steel Group – Greenhouse Gas Emissions Calculation Manual

Version:

1.0

Valid as o

Corporate Strategy Corporate Technology

- Emissions are categorized in line with the GHG¹ Protocol Corporate Standard
- Emissions are tracked following a cradle-to-gate approach
- CO₂ is the only relevant Kyoto gas for direct emissions given the nature of SSG's operations. Other GHG¹ from indirect emissions are considered immaterial
- · The reporting boundary includes
 - Scopes 1, 2, 3.1, 3.3, 3.4, 3.5, 3.6, 3.10 and 3.12 emissions
 - All sites, where operational activities are conducted
 - Activities, which are either direct operational steel making activities or ancillary activities related to steel making
 - Some smaller sites are excluded, which contribute less than 2% of Group emissions



Swiss Steel Group reports emissions for Scopes 1, 2, 3.1, 3.3, 3.4, 3.5, 3.6, 3.10 and 3.12 with clearly defined Reporting Principles

Scope	Description	Swiss Steel Group Reporting Principles
Scope 1	Direct emissions from combustion or processes	For sites falling under an Emissions Trading System (ETS), the respective ETS guidelines apply. Sites that do not fall under an ETS apply local emission factors for emissions from combustion and a mass balance approach for process emissions.
Scope 2	Indirect emissions from purchased power, steam, heating or cooling	The GHG¹ Protocol Scope 2 Guidance applies. Only power is relevant for SSG. Emissions are calculated according to the location-based method calculated with local grid factors. If a site procures power from specific sources or green energy certificates, emissions are also calculated according to the market-based method with source-specific emission factors. If waste energy is utilized by a third party, the site can reduce its reported Scope 2 emissions ("Scope 2 net"). The emissions that would have been caused by the combustion of natural gas to create the equivalent amount of energy can be deducted in line with local regulations.
Scope 3	Indirect emissions not included in Scope 2	The GHG¹ Protocol Value Chain (Scope 3) Standard applies. If not otherwise stated, the average-data method applies.
Scope 3.1	Indirect emissions from purchased goods and services	SSG distinguishes more than 3'000 different input materials, which are aggregated into material categories. Secondary emission factors from public sources such as worldsteel, industry associations or other publicly available data banks, are then applied to these categories to calculate Scope 3.1 emissions. If available, primary emissions data from specific suppliers is used.
Scope 3.3	Indirect emissions from fuel- and energy related activities (not incl. in scopes 1 or 2)	All fuels considered in Scope 1 are tracked and either location-specific emission factors or secondary emission factors from public sources are applied to calculate Scope 3.3 emissions. Transmission and distribution losses are included from 2022 onwards, while upstream emissions of purchased electricity are included since 2023.
Scope 3.4	Indirect emissions from upstream transportation and distribution The distance-based method of the GHG¹ Protocol Scope 3 Calculation Guidance is applied to transportation of incoming materials SSG distinguishes five transport modes: Road, rail, inland vessels / barges, sea and costal water, and air. Emission factors for tonne-kilometers from local or national ministries (e.g. German Federal Environmental Agency, Ademe, US EPA) are applied. When local or national emission factors are not available or outdated, then emissions are calculated with the EcoTransIT Emission Calculator.	
Scope 3.5	Indirect emissions from waste generated in operations	SSG tracks emissions from waste EAF slag according to the worldsteel methodology. Slag used in road construction or sold to slag processing facilities is credited to overall Scope 3.5 emissions. Other disposed of waste and discharged water are included in the Scope 3.5 inventory from 2023 onwards. Disposal operations are distinguished between landfill, incineration and other.
Scope 3.6	Indirect emissions from business travel	The GHG¹ Protocol spend-based method applies. SSG tracks emissions from air travel and rented motor vehicles and applies spend-based emission factors published by ClimatelQ.



Greenhouse Gas
 Source: Swiss Steel Group

Swiss Steel Group reports emissions for Scopes 1, 2, 3.1, 3.3, 3.4, 3.5, 3.6, 3.10 and 3.12 with clearly defined Reporting Principles

Scope	Description	Swiss Steel Group Reporting Principles
Scope 3.10	Processing of sold products	Sold volumes are split into the different countries and first use categories (e.g. forging, cold forming, machining, etc.) from SSG's Customer Relationship Management (CRM). Representative electrical energy and natural gas consumptions per tonne sold are then allocated to each category (factors are either based on our own operations or data from industry associations). The energy consumptions are then multiplied with the emission factor for natural gas or the location-based Scope 2 emission factor for electrical energy.
Scope 3.12	End-of-life treatment of sold products	Emissions from the preparation of steel products for recycling (e.g. handling, pressing, cutting, shredding of steel products in order to prepare usable steel scrap) are included in this category. Primary emission factors are applied to the sold steel volume of the reporting year.



FAQ: Why are reported emissions not comparable across companies?

Answer

- Different companies apply different perimeters in their tracked and reported emissions
- For example, some companies report only Scope 1 and 2 emissions for their steel mill. Others on the other hand may include also emissions from their value chain (Scope 3) and/or include more activities (system boundary)
- Also, different companies may use different emission factors to calculate their emissions
- To make emissions comparable, one has to know the perimeter (system boundary + emission scopes) as well as the applied emission factors (or used emission factor data base)
- Swiss Steel Group's emission perimeter goes beyond the industries' standard (compare next page)



The Swiss Steel Group emissions perimeter goes beyond the industries' emissions tracking standards. It comprises <u>all</u> operational steel making activities and covers Scopes 1, 2, 3.1, 3.3, 3.4, 3.5, 3.6, 3.10 and 3.12





Greenhouse Gas
 Source: Swiss Steel Group

Version history

Version	Description
23.02.2023	First release
07.08.2023	T&D losses added in Scope 3.3
12.08.2024	 Scope 3.3: added upstream emissions of purchased electricity Scope 3.4: limited to inbound materials Scope 3.5: new waste categories and discharged water included Scopes 3.10 and 3.12 newly added
29.07.2025	Scope 3.5: new disposal method «other» addedSmaller editorial changes

