

Sole Group / Sole Shipping Group

Summary report - GHG emissions & Energy for the year 2022

This report is a review of the company's energy and carbon footprint based on the total energy consumption related to the company's operations and value chain. The carbon footprint gives a general overview of the company's greenhouse gas emissions, converted into CO₂ - equivalents and it is based on reported data from internal and external systems. The analysis is based on the international standard, the Greenhouse Gas Protocol Initiative (GHG protocol), which is the most important standard for measuring greenhouse gas emissions, developed by World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD). The GHG protocol founds its carbon inventory and reporting on three main scopes of direct and indirect emissions. The reporting considers the following greenhouse gases, all converted into CO₂ equivalents: CO₂, CH₄ (methane), N₂O (laughing gas), SF₆, HFCs and PFCs.

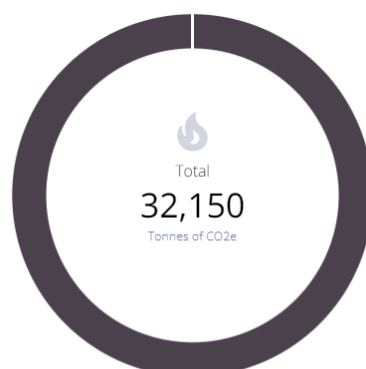
Annual GHG emission per scope

Sole Shipping Group 2021-2022

Tonne CO ₂ -eqv.	2021	2022
Scope 1 Total	27 230.7	32 049.6
Transportation*	27 230.7	32 049.6
Scope 2 Total	8.5	9.5
Electricity	8.5	9.5
Scope 3 Total	34.4	91.3
Employee commuting	2	47
Business travel	8.2	2.8
Fuel-and-energy-related activities	2.5	37.7
Purchased goods and services	21.8	3.8
Sum	27 273.7	32 150.4

* Transportation: ship-related emissions from fuel consumption, proportionate to Sole's ownership in Funds II and III

Sole Shipping Group 2022:



● Transportation: 100% ● Electricity location-based: 0% ● Purchased goods and services: 0%
 ● Fuel-and-energy-related activities: 0% ● Business travel: 0% ● Employee commuting: 0%

Sole Group / Total Fund Emissions

Tonne CO2-equiv.	2021	2022
Fund II	476 073.3	456 528.1
Fund III	144 502.0	192 543.2
Sum (Scope 1 Total)	620 575.3	649 071.3

Accounting Methodology and Sources

The consolidation approach chosen for the accounting and applied throughout the inventory is the Equity Share approach, as defined by the GHG Protocol Corporate Accounting Standard. As such, Sole Shipping Group of companies have accounted for their emissions from operations, according to Sole Shipping Group's economic interest in those operations.

Scope 1 emissions include the emissions associated with Sole Shipping Group's indirect equity share into Special Purpose Vehicles (SPVs) that acquire vessels on a sale and leaseback structure, under bareboat charter agreement model. With the Equity Share consolidation approach, and according to the Scope 3 Standard on category 15 (Investments), the emissions associated with Sole Shipping Group's indirect investment into ships that consume fuels, are accounted for (in proportion to the Groups equity share), under the Group's Scope 1. Thus Scope 1 emissions constitute the bulk of Sole Shipping Group's Carbon Accounting.

Relevant Scope 3 categories were chosen and calculated based on the GHG Protocol's principles for inclusion of Scope 3 activities. The Scope 3 categories that were accounted for in this exercise are employee commuting, business travel, fuel and energy related activities, purchased goods and services and investments. Emissions from waste were omitted due to lack of available data and the fact that their contribution to the organization's total emissions is not significant. Emissions from investments (Scope 3 category 15), in accordance with the Scope 3 Standard for accounting with the equity share approach, are recorded under the Group's Scope 1, proportional to the Group's investments in all assets (in this case, ships owned by SPVs that are owned by Funds, in part owned by Sole Shipping Group). As such, if Sole Shipping Group in 2022 indirectly owned 5 % of a given ship, 5% of that ship's fuel consumption and associated emissions in that year were attributed to Sole Shipping Group, through its indirect investment and economic interest in that ship.

The Greenhouse Gas Protocol Initiative (GHG protocol) is developed by the World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD). This analysis is according to A Corporate Accounting and Reporting Standard Revised edition, currently one of four GHG Protocol accounting standards explaining how to calculate and report GHG emissions. The reporting considers the following greenhouse gases, all converted into CO2 equivalents: CO2, CH4 (methane), N2O (laughing gas), SF6, HFCs and PFCs. The carbon inventory is divided into three main scopes of direct and indirect emissions. These are Scope 1, Scope 2 and Scope 3.

Scope 1: Mandatory reporting includes all direct emission sources where the organisation has operational control. This includes all use of fossil fuels for stationary combustion or transportation, in owned, leased or rented assets. It also includes any process emissions, from e.g. chemical processes, industrial gases, direct methane emissions etc.

Scope 2 Mandatory reporting includes indirect emissions related to purchased energy; electricity or heating/cooling where the organisation has operational control. The electricity emissions factors used in CEMAsys is based on national gross electricity production mixes on a 3 years rolling average (IEA Stat). The Nordic electricity mix covers the weighted production in Sweden, Norway, Finland and Denmark, which reflects the common Nord Pool market area. Emission factors per fuel type are based on assumption in the IEA methodological framework. Factors for district heating/cooling are either based on actual (local) production mixes, or average IEA stat.

In January 2015, the GHG Protocol published new guidelines for calculating emissions from electricity consumption.

Primarily two methods are used to "allocate" the GHG emissions created by electricity generation to the end consumers of a given grid. These are the location-based and the market-based method. The location-based method reflects the average emissions intensity of grids on which energy

consumption occurs, while the market-based method reflects emissions from electricity that companies have purposefully chosen (or their lack of choice).

Businesses who report on their GHG emissions will now have to disclose both location-based emissions from the production of electricity and the market-based emissions related to the potential purchase of Guaranties of Origin (GoO).

The purpose of this amendment in the reporting method is on one hand to show the impact of energy efficiency and saving measures, and on the other hand to display how the acquisition of GoOs affect the GHG-emissions. Using both methods in the emission reporting highlights the effect of all measures regarding electricity consumption.

The location-based method: The location-based method is based on statistical emissions information and electricity output aggregated and averaged within a defined geographic boundary and during a defined time period. Within this boundary, the different energy producers utilize a mix of energy resources, where the use of fossil fuels (coal, oil and gas) result in direct GHG-emissions. These emissions are reflected in the location-based emission factor.

The market-based method: The choice of emission factor using this method is determined by whether the business acquires GoOs or not. When selling GoOs, the supplier certify that the electricity is produced by only renewable sources, which has an emission factor of 0 grams of CO₂e per kWh. However, for electricity without the guarantee of origin, the emission factor is based on the remaining electricity production after all GoOs for renewable energy are sold. This is called a residual mix, which is normally substantially higher than the location-based factor. As an example, the market-based Norwegian residual mix factor is approximately 7 times higher than the location-based Nordic mix factor. The reason for this high factor is due to Norway's large export of GoOs to foreign consumers. In a market perspective, this implies that Norwegian hydropower is largely substituted with an electricity mix including fossil fuels.

Scope 3: Voluntary reporting of indirect emissions from purchased products or services in the value chain. The scope 3 emissions are a result of the company's different activities, which are not controlled by the company, i.e. they're indirect. Examples are business travel, goods transportation, waste handling, consumption of products etc. In general, the GHG report should include information that users, both internal and external to the company need for their decision making. An important aspect of relevance is the selection of an appropriate inventory boundary that reflects the substance and economic reality of the company's business relationships.

Sources:

DEFRA (2013). Environmental reporting guidelines: Including mandatory greenhouse gas emissions reporting guidance. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/206392/pb13944-env-reporting-guidance.pdf

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IMO (2014). Reduction of GHG emissions from ships - Third IMO GHG Study 2014 (Final report). International Maritime Organisation, <http://www.iadc.org/wp-content/uploads/2014/02/MEPC-67-6-INF3-2014-Final-Report-complete.pdf>

IPCC (2014). IPCC fifth assessment report: Climate change 2013 (AR5 updated version November 2014). <http://www.ipcc.ch/report/ar5/>

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WBCSD/WRI (2011). Corporate value chain (Scope 3) accounting and reporting standard: Supplement to the GHG Protocol corporate accounting and reporting standard. World Business Council on Sustainable Development (WBCSD), Geneva, Switzerland /World Resource Institute (WRI), Washington DC, USA, 149 pp.

WBCSD/WRI (2015). GHG protocol Scope 2 guidance: An amendment to the GHG protocol corporate standard. World Business Council on Sustainable Development (WBCSD), Geneva, Switzerland /World Resource Institute (WRI), Washington DC, USA, 117 pp.

This list of references may not be complete. Depending on the use of the CEMAsys emission factors database, there are a number of different local and national sources. If necessary, please contact CEMAsys Help Desk for further details.