

Explanatory Notes for environmental Key Performance Indicators Fiscal Year 2019

2/26/2020

These notes accompany GEA's published environmental performance indicators. These figures include the company's energy consumption figures, converted into CO₂ emissions. All greenhouse gas emission data (Scopes 1 to 3 and intensity) for the 2019 financial year have been evaluated by the auditing company KPMG AG to obtain a limited assurance engagement as per ISAE 3000 (revised).

REPORTING STANDARDS

In calculating these environmental indicators, we focus on the criteria and definitions laid out in the Sustainability Reporting Standards of the Global Reporting Initiative (GRI). Data are collected in accordance with internal environmental reporting guidelines at a Group level.

REPORTING LEVELS FOR ENVIRONMENTAL INDICATORS

All of our production and repair facilities, as well as the GEA Group Aktiengesellschaft, are included in the reporting of environmental performance indicators. GEA follows the principle of operational control to determine reporting levels. Operational control refers to a situation where GEA owns a majority interest of more than 50 per cent or otherwise possesses full decision-making authority for operational processes, due to contractual provisions.

Each newly purchased or constructed location is included in the reporting process no later than the reporting period in which data is collected, when the site is first incorporated into production operations.

The following are not currently included when collecting data relating to environmental indicators, for reasons of materiality:

- Non-productive locations with the exception of the GEA Group Aktiengesellschaft

IDENTIFYING ENVIRONMENTAL INDICATORS

a. Direct energy consumption

Direct energy consumption includes the annual consumption of combustion gases, fuel oil, petrol and diesel.

b. Indirect energy consumption

Indirect energy consumption includes the annual consumption of purchased electricity and heat as well as power equivalents for steam and cooling.

c. CO₂ emissions

CO₂ emissions are calculated on the basis of CO₂ equivalents, taking into consideration total greenhouse gases as defined by the Kyoto Protocol, calculated on the basis of the greenhouse gas potential of 100 years. In external reporting, a distinction is made between three categories or “Scopes”:

- Scope 1 (direct CO₂ emissions): emission sources owned by GEA or under our control, including:
 - our own energy production facilities
 - fuel consumption in vehicles
- Scope 2 (indirect CO₂ emissions): emissions generated by the use of additionally purchased energy, including:
 - electricity
 - steam and heating
 - district heating
- Scope 3 (CO₂ emissions generated by upstream or downstream value-adding levels): Scope 3 emissions from the following categories were calculated for the 2019 financial year in accordance with the WRI/WBCSD Corporate Value Chain Accounting and Reporting Protocol:
 - This indicator currently only includes reporting for business travel.
 - In this area, GEA distinguishes between air travel (global recording by GEA’s travel office), hire car bookings (hire within Germany) and travel via Deutsche Bahn (bookings within Germany).

We are constantly working to integrate all sources of greenhouse gases into this data compilation and to use the most specific emissions factors supplied by each provider, so as to improve the accuracy of our CO₂ emissions reporting.

The calculation of CO₂ emissions for direct CO₂ emissions (Scope 1) involves generally accepted emission factors published by approved organizations. Generally accepted power supply emission factors published by country-specific approved organizations are used for indirect CO₂ emissions (Scope 2). The calculation of other indirect CO₂ emissions (Scope 3) in the category of "Fuels and energy-consuming activities not included in Scopes 1 and 2" is based on the values and consumption figures reported by the locations and public standard emission factors supplied by approved organizations.

CALCULATION OF CO₂ EMISSIONS FOR 2019

In calculating CO₂ emissions for 2019, very low individual figures from GEA locations were grossed up. This approach was discussed with KPMG.

SOURCES FOR EMISSION FACTORS USED TO CALCULATE EMISSIONS

- We report direct and indirect emissions (Scope 1/2) in accordance with the requirements of the Greenhouse Gas Protocol (GHG Protocol/IEA, 11/2019).
- Our global-warming potential calculations are based on the Global Warming Potentials (GWP Global Warming Potential 100 Years).
- Local, country-specific conversion factors are used to calculate energy consumption. These are sourced from data provided by the IEA (International Energy Agency) and the DEFRA (Department for Environmental and Rural Affairs, 11/2019).
- CO₂ emissions generated by Scope 2 / electricity are calculated on a market basis for 22 locations in Germany and New Zealand. These calculations are based on electricity provider data (DE: Stadtwerke Ostmünsterland and NZ: Mercury Electricity).

QUALITY AND COMPARABILITY

We are continually working to improve the quality of our environmental performance data at all levels of the organization. In so doing, we are able to monitor our environmental performance at various levels, compare it internally and generate benchmarks for individual departments.

To ensure the comparability of our environmental performance indicators, Group-wide regulations have been established to govern prospective and retrospective data adaptation. Retrospective adaptations are made and explained in the case of structural changes, if these have a significant effect on the comparability of the designated indicators.

Since 2019, GEA has calculated specific environmental performance indicators in relation to revenue and reported on all seven regions of the Group.

IMPRINT

GEA Group Aktiengesellschaft

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