

Greenhouse Gas (GHG) Emissions

Methodology Statement



1 Introduction

This document is a summary of the methodology of the emissions data for Aker Solutions. The core of building our data process is based on the GHG Protocol Corporate Accounting and Reporting Standard and all other supplementary reference and guidance documents.

2 Organizational Boundaries

The defined boundaries is Aker Solutions' direct control and administration. The consolidation of GHG emissions is based on the Operational Control approach.

3 Operational Boundaries

- **Scope 1:** Direct emissions from the use of fuel, gas, refrigerants and welding gas on Aker Solutions' operational sites, yards and offices and by all Aker Solutions-owned vehicles, including leased equipment under our operational control.
- **Scope 2:** Indirect emissions from the use of electricity/heating/cooling consumed at our operational sites. Emissions are accounted for based on the electricity consumption in each location. The CO_{2e} emissions from electricity are reported as location-based emissions using location specific emissions factors, market-based emissions with market-based factors complemented with location-based factors in the cases the aforementioned were not available. As we encourage the use of renewable electricity, we purchase electricity attribute certificates (EACs) and utilize a market-based approach in our calculations reporting scope 2 emissions including EACs as well, which is considered our main accounting method.
- **Scope 3:** Indirect emissions from the value chain that include the major emissions sources of Aker Solutions; consolidated according to Table 1.

4 Data Collection Tools

- Synergi: scope 1 & 2, scope 3 (categories 3, 5, 12)
- Supplier specific data: scope 3 (categories 1, 4, 6, 9)
- Company Enterprise Resource Planning (ERP): scope 3 (categories 1, 2, 7, 11)

5 Sources of Emissions Factors

- **Scope 1:** DEFRA (2019-2022), Ecolnvent v3.9. In the 2022 emissions calculations there was an update on the acetylene, biodiesel blend and biofuel emissions factors to represent the emissions of the fuels used in the reporting year.
- **Scope 2 – Location-based:** IEA 2021, 2019.

- **Scope 2 – Market-based:** Association of Issuing Bodies (AIB), Australian Government Department of Climate Change, Energy, the Environment and Water Emissions Factors, EcoInvent v3.9, Canada Submission to the UN Framework Convention on Climate Change 2019, Climate Transparency report (IEA 2021, IGES). Location-specific emissions factors were updated according to a latest version of the database.
- **Scope 3:** Quantis (2021), EcoInvent v3.9, DEFRA (2022), EPD program operators (EPD Norge, IBU), EN 16258:2012.
- **Out of scope emissions:** DEFRA (2022).

6 Calculations

Aker Solutions is reporting all relevant scope emissions separately in metric tons of CO₂ equivalents (tCO_{2e}). The calculated CO_{2e} emissions represent all greenhouse gases covered by the UNFCCC/Kyoto Protocol, aggregated and converted to CO_{2e} emissions from our operations or our value chain. Conversion of units of measure is performed according to the fuel properties as described in the emissions factor databases and the most common average values per fuel.

Calculations for scope 1 and scope 2 emissions including the conversion factor between units are done automatically in Synergi Life reporting tool, licensed from DNV. Fuel and electricity data are harvested locally either via meter readings at the sites or via invoicing of purchased electricity and fuels. Each location submits their environmental data on a monthly basis for the premises and activities controlled by Aker Solutions.

The following table lists all the scope 3 categories that are included in the inventory, with a description on the calculation method, the exclusions in each category and the source of emissions factors. The categories that are not included are not relevant for Aker Solutions activities and business model.

Table 1: Scope 3 Emissions

Emissions Source	Main Calculations	Emissions Factor Source
Category 1 – Purchased goods and services	<p>Category 1 emissions are calculated according to a hybrid method combining spend-based data for 2022, supplier specific emissions factors sourced by Environmental Product Declarations (EPDs) and emissions factors from life cycle inventory databases. In total 100% of suppliers for the reporting year were included in the emissions calculations, 96% of the data is from spend, 4% is a combination of EPDs, supplier specific and industry average information. The top suppliers that represent 80% of the annual spend data were classified in emissions categories based on the main business activity of each supplier and accounted for in the emissions inventory using emissions factors for each category. This percentage includes the share of the supplier EPD and industry average calculated emissions. The remaining 20% of suppliers were classified in one common category due to data availability and were included in the inventory with application of average spend based factor. Overall, the spend data used in category 1 are defined as the annual spend data from external vendors through the Profit & Loss Statement. Staff payroll, travels, CAPEX and main logistic spend data were excluded, to avoid double counting, as these are accounted for in other scope 3 categories. Based on this data, the external vendor share of financial costs is 76%. This percentage is also applied to estimate the external vendor share of costs for newly acquired companies. The spend based emissions were adjusted for the average 4% inflation rate compared to 2021, as the emissions factors used are based on 2021 analysis. Methodology: Hybrid method.</p>	<p>Quantis (2021), EcolInvent v3.9, EPD program operators, (EPD Norge, IBU),</p>
Category 2 – Capital goods	<p>Capital goods emissions are reported according to the organization’s CAPEX data for the reporting year. The CAPEX data used for the emissions reporting consist of the fixed assets of 2022. Methodology: Spend-based method.</p>	<p>Quantis (2021)</p>
Category 3 – Fuel and energy related activities	<p>Emissions are calculated using activity data from scope 1 and 2, with the upstream emissions factors from lifecycle inventory databases. Aker Solutions calculates category 3 emissions from the sum of the upstream fossil and biogenic fuel emissions, upstream emissions of purchased electricity and transmission and distribution losses. Methodology: Average data method.</p>	<p>EcolInvent v3.9, DEFRA (2022)</p>
Category 4 – Upstream transportation	<p>Emissions are calculated from the third-party transportation services purchased by Aker Solutions in the reporting year, including inbound and outbound logistics. The activity data are provided by our logistic suppliers, who report distance, weight and transport mode information to Aker Solutions segments. Methodology: Distance-based method.</p>	<p>DEFRA (2022)</p>
Category 5 – Waste generation in operations	<p>Waste generation per waste type is registered in all locations per waste type. For the emissions calculation the emissions factors are applied according to the waste treatment activity. Methodology: Waste-type-specific method.</p>	<p>DEFRA (2022)</p>

Category 6 – Business travel	<p>Aker Solutions' policy for employees is to order travel services through a third party provider. Business travel emissions are calculated based on distance and mode of transport provided by the service provider. Methodology: Distance-based method.</p>	DEFRA (2022)
Category 7 – Employee commuting	<p>Emissions are calculated based on estimations for employee commuting and average data for commuting patterns. The average ratio of home office and the relevant emissions is included in the calculations. Methodology: Average-data method.</p>	DEFRA (2022), ClimatePartner
Category 9 – Downstream transportation	<p>Downstream transportation emissions are accounted based on the maritime operations during installation and commissioning phase of projects. The activity data for the marine operations are provided in daily reports by third party service providers. Methodology: Fuel-based method.</p>	EN 16258:2012
Category 11 – Use of sold products	<p>Emissions from the use of sold products category are from Aker Solutions' products that directly consume fuel or electricity during the use phase and were delivered in the reporting year. The emissions factors used are representative for each location. This category includes use phase emissions from new and modification projects. In the modifications projects, emissions are based on the estimated new equipment provided, and exclude equipment that was repaired and equipment that was defined as out of scope. Emissions attributed to Aker Solutions were assessed from overall project emissions reported during normal operation phase before modifications. An electrification phase is also accounted for according to the contractual years. Methodology: Direct use-phase emissions.</p>	Ecolnvent v3.9
Category 12 – End-of-life treatment of sold products	<p>Emissions are accounted based on the waste generation from decommissioning projects in Aker Solutions and the estimated disposal rates from national average statistics. Methodology: Waste-type-specific method.</p>	DEFRA (2022)