

# Statement of Greenhouse Gas (GHG) Emissions

For fiscal year 2021, the 12 months ending December 31, 2021

**Table 1:** *Scope 1, Scope 2 and Scope 3 emissions performance*

Global CO <sub>2</sub> e emissions (000 metric tonnes)	Fiscal 2021 <sup>1</sup>	Baseline Fiscal 2020	Year on year change
Scope 1 <sup>2</sup>	148	137	8%
Scope 2 location-based <sup>3</sup>	314	287	9%
Scope 2 market-based <sup>3</sup>	191	210	-9%
Gross Scope 1 & 2	339	347	-2%
Scope 3 <sup>4</sup>	2,768	2,838	-3%
Purchased goods and services	2,487	2,562	-3%
Fuel- and energy-related activities (not included in scope 1 or scope 2)	63	72	-13%
Upstream transportation and distribution	188	182	3%
Waste generated in operations	30	22	36%
<b>Gross Scope 1, 2 and 3</b>	<b>3,107</b>	<b>3,185</b>	<b>-2%</b>

**Table 2:** *Company CO<sub>2</sub>e emissions by Scope and by business unit*

Scope 1 CO <sub>2</sub> e emissions (000 metric tonnes)	Fiscal 2021	Baseline Fiscal 2020	Year on year change
AMP - Europe	70	69	1%
AMP - North America	66	56	18%
AMP - South America	13	12	8%

Scope 2 location based CO <sub>2</sub> e emissions (000 metric tonnes)	Fiscal 2021	Baseline Fiscal 2020	Year on year change
AMP - Europe	148	144	3%
AMP - North America	147	127	16%
AMP - South America	19	16	19%

Scope 2 market based CO <sub>2</sub> e emissions (000 metric tonnes)	Fiscal 2021	Baseline Fiscal 2020	Year on year change
AMP - Europe	75	89	-16%
AMP - North America	115	118	-3%
AMP - South America	4	3	33%

<sup>1</sup> Third party conducted a review of Scope 1, Scope 2, and Scope 3 GHG emissions data for the year ended December 31, 2021. This can be found in the Sustainability area of [AMP's corporate website](#).

<sup>2</sup> Scope 1 emissions are those generated directly from sources owned or controlled by AMP.

<sup>3</sup> Scope 2 emissions are those generated by purchased electricity, heat and steam consumed by AMP.

<sup>4</sup> Scope 3 indirect emissions are those that are a consequence of AMP activities and occur from sources not owned or controlled by AMP currently reports on purchased goods and services, fuel- and energy-related activities (not included in scope 1 or scope 2), upstream transportation and distribution, and waste generated in operations Scope 3 emissions.

### GHG emissions by category of gases

In fiscal 2021 AMP reported GHG emissions converted to CO<sub>2</sub>e.

All GHG emissions figures are in metric tonnes of carbon dioxide equivalent (CO<sub>2</sub>e) and include the seven GHGs covered by the Kyoto Protocol: carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF<sub>6</sub>) and nitrogen trifluoride (NF<sub>3</sub>). These gases are aggregated and not reported separately because AMP uses standard emissions factors for CO<sub>2</sub>e.

**Table 3: Company recycled content<sup>1</sup>**

	Fiscal 2021	Baseline Fiscal 2020	Year on year change
Gross AMP	70%	62%	13%

<sup>1</sup> Recycled content is defined according to ISO 14021 as the proportion, by mass, of recycled material in a product or packaging. The percentages shown here include both can bodies and ends. Pre-consumer scrap (e.g., can manufacturer class scrap, other industrial scrap, etc.) and post-consumer (e.g., UBC or used beverage cans) are included in these calculations. Run-around scrap is not included. Primary data on recycled content comes from our aluminium suppliers. Where primary data is not available an estimation methodology has been created and validated by a third-party consultant. More details on this estimation are available in the methodology section of this Statement.

### Management Assertion

Management of AMP is responsible for the completeness, accuracy and validity of the AMP Statement of GHG Emissions (the "Statement of GHG Emissions") for the fiscal year ended December 31, 2021. Management is also responsible for the collection, quantification and presentation of the Statement of GHG Emissions and for the selection of the criteria, which Management believes provide an objective basis for measuring and reporting. Management of AMP asserts that the Statement of GHG Emissions is presented in accordance with the GHG Protocol: A Corporate Accounting and Reporting Standard, Revised Edition, published by the World Resources Institute/World Business Council for Sustainable Development (the "GHG Protocol").

### AMP - Notes to Statement of GHG Emissions

For fiscal year 2021, the 12 months ended December 31, 2021.

### *GHG reporting policies*

AMP is a leading, global supplier of sustainable and infinitely recyclable beverage cans. AMP operates 24 production facilities in the Americas and Europe, employs approximately 5,800 people and recorded revenues of \$4.1 billion in 2021. AMP is 75% owned by Ardagh Group and is listed on the New York Stock Exchange.

The beverage cans AMP manufactures are an inherently environmentally friendly packaging product, characterised by the highest recycle rate and recycled content rate of any other beverage package on the market. AMP builds off the inherent environmental advantages of beverage cans by clearly supporting our customer's sustainability platforms, reducing our impact on the environment and improving the communities we do business in. It is a strategy that leverages the unique capabilities and expertise of our entire global team as we organise such actions as material, energy, water and waste reductions and charitable actions according to our three strategic pillars:

**Emissions** – reduce our GHG and volatile organic compound (VOC) emissions

**Ecology** – minimise our impact on the environment

**Social** – safe, diverse and inclusive team focused on customer satisfaction and supporting the communities we do business in.

Scope 1 and 2 GHG emissions information has been prepared in accordance with the GHG Protocol.

Scope 3 GHG emissions information has been prepared in accordance with the World Resources Institute/World Business Council for Sustainable Development GHG Protocol: Corporate Value Chain (Scope 3), Accounting and Reporting Standard. Scope 3 emissions includes four of the 15 Scope 3 categories: Purchased goods and services, fuel- and energy-related activities (not included in scope 1 or scope 2), upstream transportation and distribution for operations outsourced to third parties where deliveries are purchased and paid for by AMP and waste generated in operations.

Collectively, the Corporate Accounting and Reporting Standard, Revised Edition and Corporate Value Chain (Scope 3), Accounting and Reporting Standard are referred to as the GHG Protocol in this document.

A summary of the key disclosure policies is set out below.

### *Baseline year GHG emissions*

We are aligned to the Science-based Targets initiative (SBTi) and the UN Paris Agreement of 2015. We have identified fiscal 2020 as our baseline and have received SBTi approval for GHG emission targets covering scopes 1, 2 and 3. AMP commits to reduce absolute scope 1+2 GHG emissions and absolute scope 3 GHG emissions by 42% and 12.3% by 2030 from a 2020 base year, respectively. AMP has also committed to sourcing 100% of its electricity from renewable sources by 2030. In fiscal 2020, renewable electricity accounted for 22% of total AMP's electricity usage.

### *GHG Reporting Scope and Boundaries*

GHG emissions pertaining to the organisational and operational boundaries have been reported for global operations for owned, managed and leased locations including manufacturing facilities and office spaces adjacent to production facilities.

Except as described below, GHG emissions have been reported for those entities for which AMP has operational control (as defined by the GHG Protocol).

AMP's external financial performance reporting includes all subsidiaries and joint ventures in which AMP holds a controlling interest. The main differences in AMP's external sustainability reporting, which includes GHG emissions, are as follows:

- Stand-alone office buildings/spaces are excluded. Using an estimation methodology, these stand-alone office buildings/spaces would account for less than 1 percent of AMP's scope 1 and scope 2 GHG inventory, and scope 3 emissions. This has been estimated based on utility invoices for the largest office building/space and extrapolated to account for other locations considering electricity and fossil fuel usage.
- Business acquisitions during the reporting period are excluded from sustainability performance data as per the GHG Protocol. The complete dataset is reported once a full year are available and based on materiality.

The Statement of GHG emissions includes Scope 1 (direct), Scope 2 (indirect) and Scope 3 (indirect) emissions that have been reported for operations within the operational boundary described below.

**Scope 1:** *Direct GHG emissions from sources owned or controlled by AMP*

Our Scope 1 emissions include all relevant GHGs emitted directly from AMP's activities, as follows:

- Gas and oil used for heating
- Gas used in ovens and regenerative thermal oxidisers
- Diesel and LPG used in forklifts
- Fugitive emissions resulting from the use of refrigeration and air conditioning equipment are not included as AMP evaluates their materiality for its operations to be less than 1 percent.

**Scope 2:** *Indirect GHG emissions*

Our Scope 2 emissions include:

- Indirect emissions from purchased/acquired electricity and purchased/acquired heat or steam consumed in buildings (offices, retail stores and warehouses).

**Scope 3:** *Indirect GHG emissions are emissions that are a consequence of the activities of AMP and occur from sources not owned or controlled by AMP.*

Our Scope 3 emissions include GHGs associated with the below four categories according to the GHG Protocol:

- Purchased goods and services
- Fuel- and energy-related activities (not included in scope 1 or scope 2)
- Upstream transportation and distribution for operations outsourced to third parties where deliveries are purchased and paid for by AMP
- Waste generated in operations.

The other eleven (11) categories are excluded from this reporting based on materiality. In 2022, Ardagh estimated emissions from these categories combined would account for less than 1 percent of total scope 1+2+3 emissions. This analysis will be updated on a biennial basis.

### *Methodology*

All business emissions data submissions are prepared and validated by the local teams with support from the sustainability teams in each business. Business unit sustainability teams review and approve the submissions, which are then provided to Ardagh Group sustainability team.

Ardagh Group's sustainability team produces an internal report to benchmark all businesses, comparing year-on-year performance (where applicable) and baseline performance. The key outcomes of this report are shared with Ardagh's Board Sustainability Committee.

### Energy data

Energy data covers the resulting CO<sub>2</sub>e emissions from energy used to operate our facilities:

- Gathered from invoices/meter readings (manual or electronic)
- Reported for all energy purchased including energy used in manufacturing operations and adjacent warehouses and office buildings/spaces
- Data not reported for operations outsourced to third parties, such as distribution centres run by third parties, unless the activity is outsourced to a dedicated third-party contractor to conduct activities on our behalf on a site AMP owns/leases.

The scope 1 and scope 2 carbon footprint, measured in tonnes CO<sub>2</sub>e, is calculated from the usage data submitted, applying the relevant conversion factors.

### Purchased goods and services

Purchased goods and services data covers the resulting CO<sub>2</sub>e emissions from the purchase of aluminium and steel (tin plate):

- Gathered purchased volume of aluminium and steel (tin plate) from internal systems
- Estimated for all purchased volume considering recycled content
- Primary data for recycled content is provided by suppliers on an annual basis
- When primary data are not available, recycled content is calculated considering average recycle rates for metal packaging. The following parameters are taken into account:
  - Amount of purchased materials (aluminium and steel)
  - Portion of scrap generated during the manufacturing process at AMP's facilities
  - Average recycling rates for aluminium and steel as packaging materials in Europe, North America and South America provided by the respective industry associations.

The scope 3 carbon footprint, measured in tonnes CO<sub>2</sub>e, is calculated from the purchased volume data submitted, taking into account portion of primary material and recycled material (as needed), then applying the relevant conversion factors.

### Fuel- and energy-related activities (not included in scope 1 or scope 2)

Fuel- and energy-related activities data covers the resulting CO<sub>2</sub>e emissions from the exploration of raw materials, pre-processing, transport and storage of fuels as well as transmission and distribution losses related to fuel and electricity consumptions:

- Gathered energy data from invoices/meter readings (manual or electronic)
- Reported for all energy purchased including energy used in manufacturing operations and adjacent warehouses and office buildings/spaces
- Data not reported for operations outsourced to third parties, such as distribution centres run by third parties, unless the activity is outsourced to a dedicated third-party contractor to conduct activities on our behalf on a site AMP owns/leases.

The scope 3 carbon footprint, measured in tonnes CO<sub>2</sub>e, is calculated from the usage data submitted, applying the relevant conversion factors.

### Upstream transportation and distribution

Upstream transportation and distribution data covers the resulting CO<sub>2</sub>e emissions from all transports carried out on behalf of and paid by AMP:

- Gathered upstream transportation and distribution data from suppliers including fuel consumption, mode of transport, distance and/or load factor
- Inbound logistics considers only the most relevant material (i.e., aluminium)
- Outbound logistics includes transport of products where payment to logistic companies have been added to the product price
- Transports conducted with own trucks are omitted from this category as they are included in scope 1 emissions.

The scope 3 carbon footprint, measured in tonnes CO<sub>2</sub>e, is calculated from the supplier data submitted, applying the relevant conversion factors.

### **Waste generated in operations**

Waste generated in operations data covers the resulting CO<sub>2</sub>e emissions from the disposal of waste for all facilities:

- Gathered waste volume data, categorised in waste fractions, from invoices
- Reported for all waste generated in manufacturing operations and adjacent warehouses and office buildings/spaces
- Waste volumes are categorised into waste fractions (e.g., batteries, chemicals, construction waste, dust, electrical waste, metal (excluding process class scrap as this is accounted for under purchased goods and services), municipal waste, oil, organic waste, paint and varnish, paper and cardboard, plastic, sludge, soil, and wood).
- Designation of disposal method is also considered (i.e., recycled/not recycled/incineration/landfill) as this has significant impact on the relevant emission factors.

The scope 3 carbon footprint, measured in tonnes CO<sub>2</sub>e, is calculated from the waste volume data submitted, applying the relevant conversion factors.

### *GHG emission factors*

For fossil fuel combustion, the latest available IPCC Guidelines for National GHG (GHG) Inventories factors using the lower calorific value (lcv) for natural gas, heavy fuel oil, diesel oil and liquefied petroleum gas (LPG).

For electricity, location-based, country specific CO<sub>2</sub>e conversion factors published by the UK Department for Environment, Food & Rural Affairs (DEFRA) CO<sub>2</sub>e factors are used, apart from the US. US data are converted using the US Environmental Protection Agency (EPA) Emissions & General Resource Integrated Database (eGRID) specific CO<sub>2</sub>e factors that take into account where the electricity was produced within the country.

For electricity, market-based, facility specific CO<sub>2</sub>e conversion factors from utility suppliers are used. These factors are requested and updated on an annual basis. Further confirmation of energy attribute certificates or equivalents, as relevant, are maintained centrally.

For facilities reporting hot water, factors are provided on an annual basis by Technical University of Dresden. In 2021, only two facilities in Germany report hot water.

For purchased goods and services, the latest available GaBi Professional and EcoInvent factors are used across all regions. When primary data for product carbon footprint (PCF) are provided by suppliers based on a mix of primary material and recycled material, further recycling is not included to avoid double counting. Primary data are reported on an annual basis. When primary data is not available, the portion of primary material and recycled material is considered based on the calculation detailed in the methodology section above and relevant conversion factors from GaBi Professional and EcoInvent are used.

For fuel-related activities (not included in scope 1), the latest available DEFRA factors are used across all regions. For electricity-related activities (not included in scope 2), the latest available GaBi Professional factors are used across all regions.

For upstream transportation and distribution, the latest available DEFRA factors for freight transport by heavy goods vehicles considering various vehicle sizes and load factors are used across all regions. For the most precise estimation of well-to-tank (WTT) and well-to-wheel (WTW) emissions, the relevant conversion factors are determined based on available input variables.

For waste generated in operations, the latest available DEFRA, GaBi Professional and EcoInvent factors are used across all regions.

Conversion factors are updated annually to reflect the factors published by the DEFRA, GaBi Professional, EcoInvent that are in effect as of 31 March in the reporting year.

### *Uncertainty*

The capture of environmental data continues to evolve. AMP businesses are dispersed around the globe and in many instances rely on third parties to provide elements of data.

AMP continually seeks ways to improve the quality and reliability of data through robust collection processes in which completeness, accuracy and relevance are reviewed in light of AMP's definition, policies and procedures.

### *Estimates*

Where actual data are not available, businesses apply estimation methodologies to arrive at figures that accurately reflect the businesses activities.

In instances where estimation or extrapolation techniques are used, the following points are considered by the businesses:

- Is the sample upon which the estimation/extrapolation-based representative of the data?
- Has the sample been reviewed at least annually?
- Has the technique for estimation/extrapolation been reviewed at least annually?
- Can the data be benchmarked to or checked against alternative sources of data for reasonableness?
- Has the current year's data been compared to the prior year's data to identify any significant changes?

The businesses are challenged to work with suppliers and to continually enhance internal data capture processes to improve the quality of each element of sustainability performance data.

### *Review of GHG inventory*

Third-party conducted a review and provided limited assurance, based on the international assurance and audit standard of ISAE 3000, of AMP's GHG emissions reporting for the year ended December 31, 2021, for Scope 1, Scope 2 and Scope 3 GHG emissions. This can be found in the Sustainability area of [AMP's corporate website](#).