

2024 environmental data – methodologies and supplementary data

Greenhouse Gas (GHG)

Our Scope 1 and 2 GHG emissions are calculated with reference to the GHG Protocol Corporate Standard (2015 revision). We report in tonnes of CO₂ equivalent (CO₂e) and include all gases in the GHG Protocol. We do not include any purchased offsets in our GHG inventory.

We take an operational control approach to defining our GHG and energy organisational boundary. This approach is consistent with our financial statements. This means our equity ownerships are excluded from our combined Scope 1 and 2 footprint but are included in Scope 3 Category 15 (Investments). Data from new facilities are included from the date we take control and the facility becomes operational.

Scope 1: Our Scope 1 GHG emissions include emissions from combustion of fuels for energy, heat and vehicles, process emissions from our chemical manufacturing, refrigerants and land use change at our mines. Fuels and refrigerants use consumption invoices from suppliers wherever possible, and estimates from the local teams if invoices are not available in a timely manner for reporting deadlines. We use DEFRA emission factors for Scope 1 fuels globally, and these factors include the Global Warming Potential (GWP) of CH₄ and N₂O. The GWP used for HFCs is specific to the actual HFC consumed.

Biomass: CO₂ from biomass is reported outside of the Scopes. CH₄ and N₂O emissions from biomass are included in our Scope 1. We assume diesel fuels contain biomass, and use the appropriate DEFRA factors to remove this CO₂ from our Scope 1 and include it in the biomass reporting number.

Scope 2: Our Scope 2 emissions include all emissions caused by creating the electricity and steam, using invoices issued by our suppliers. We use IEA emissions factors for location-based Scope 2 emissions, except in the UK where we use DEFRA factors. Scope 2 (market-based) emissions include power purchases associated with a Renewable Energy Certificate (REC) or Guarantee of Origin (GO). We use residual mix factors from the Association of Issuing Bodies (AIB) for European sites without an REC or GO, and use location-based factors for remaining sites market-based emissions.

Water

Water withdrawal data uses invoices from our water suppliers, or our own meter readings where we abstract water directly from the environment. Where invoices are not available, for example at some of our offices, estimates from the local teams are used.

Waste

Waste data uses invoices from our waste handling suppliers. Where invoices are not available, estimates from the local teams are used.

Approach to estimation

Where estimation is necessary and invoices exist from a prior data period, this prior period is used to estimate the KPI, adjusting for major changes in the site situation (e.g. a change in office headcount). Where there is no specific consumption data from a prior period (for example, waste from some of our offices), the local team make a calculation based on known facts such as headcount and local waste treatment statistics.

Supplementary environmental data 2024¹⁾

Scope 1 constituent gases

	CO ₂ e	CO ₂	CH ₄	N ₂ O	HFC	PFC	SF ₆	NF ₃
Direct GHG emissions (t CO ₂ e)	48,889	48,412	157	52	268	0	0	0
Direct emissions (tonnes of gas)		48,412	6	0.2	0.15	0	0	0

Greenhouse gas (Scope 1 and Scope 2) by region

Tonnes CO ₂ e	Global	UK	Europe	Asia	Americas
Scope 1	48,889	7,323	4,217	8,120	29,228
Scope 2 market-based	28,020	396	1,985	17,612	8,027
Scope 2 location-based	48,897	1,879	18,895	17,612	10,511

Energy from fuel type by region

kWh	Global	UK	Europe	Asia	Americas
Natural Gas	249,426,154	39,930,557	14,344,317	40,330,906	154,820,375
Diesel	5,419,270	0	1,053,423	2,125,498	2,240,349
Petrol	922,541	0	322,559	233,279	366,702
LPG	6,094,002	0	5,726,616	0	367,386
Propane	329,402	93,831	37,162	0	198,409
Biomass	8,556,965	0	0	8,556,965	0

Purchased energy by region

kWh	Global	UK	Europe	Asia	Americas
Total purchased energy	221,847,700	9,075,290	154,936,334	26,268,862	31,567,215
Total steam	7,506,896	0	3,978,285	0	3,528,611
Total electricity	214,340,804	9,075,290	150,958,049	26,268,862	28,038,604
- from renewables	48,034,974	8,055,870	32,991,361	0	6,987,743
- from nuclear	116,184,914	0	116,184,914	0	0

Water withdrawals by region

m ³	Global	UK	Europe	Asia	Americas
Total water withdrawal	1,568,215	352,277	404,753	230,823	580,362
Water withdrawal by source:					
- Ground	321,139	218,091	0	0	103,048
- Surface	185,539	0	122,522	109,145	0
- Third Party	876,410	134,186	282,231	121, 678	477,314

Waste sent for third party treatment by region

Tonnes	Global	UK	Europe	Asia	Americas
Hazardous waste landfilled	386	0	9	377	0
Hazardous waste incinerated	1,214	169	22	949	74
Hazardous waste recycled/reused	9	0	9	0	1
Total hazardous waste	1,610	169	39	1,326	74
Non-hazardous waste landfilled	10,745	6,110	2	55	4,578
Non-hazardous waste incinerated	213	0	201	12	0
Non-hazardous waste recycled	832	0	454	0	378
Non-hazardous waste reused	5,804	0	0	5,804	0
Total non-hazardous waste	17,594	6,110	657	5,870	4,956
Total waste	19,204	6,280	696	7,197	5,030

- ¹⁾ While Global data has been verified to a reasonable level by a third party (TÜV SÜD – see their verification statement on our website), totals for individual regions have not expressly been verified by them.