

GlaxoSmithKline Corporate Responsibility Report 2014 – Environmental Metrics (Detailed)¹

Energy Use	2014	2013	2012
Energy for Operations (Million Gj)	16.4	17.6	17.4
Natural Gas	8.18	8.96	8.73
Coal	0.38	0.49	0.49
Steam / Hot Water (Scope 2) - KPI ²	0.11	0.11	0.12
Electricity (Scope 2)	6.73	7.11	7.25
Other Fuels	0.48	0.52	0.56
Biomass (Usage)	0.56	0.41	0.28
Green House Gas Emissions (CO2 equivalents)³	2014	2013	2012
Total Scope 1 & 2 Emissions (Million kg)	1603.5	1808.6	1794.7
Total Scope 1 Emissions	877.04	1,040.93	1,016.98
On-site fuel use	485.4	538.38	529.12
Sales force vehicles ⁴	187.34	177.16	166.97
Inhaler Propellant Losses (Emissions)	168.92	254.36	244.24
Waste Treatment Related Releases (Emissions)	22.67	23.55	27.18
Refrigerant Gas Losses (Equip >1kg refrigerant) ^{5,6}	11.83	12.08	14.51
Direct CO2 Releases from Production ⁷	0.56	35.19	33.18
Other Releases (Emissions)	0.33	0.2	1.76
Total Scope 2 Emissions	726.47	767.71	777.67
Electricity	719.74	759.82	766.18
Steam/Hot Water	6.73	7.89	11.49
Total Verified Scope 3 Emissions			
Total Scope 3 Emissions	5,726.8	5,594.79	5,499.41
Emissions from use of propellant based inhalers by patients	5,411.09	5,302.29	5,198.28
Product Logistics ⁴	222.12	202.22	202.70
Business Travel by Air ⁴	93.59	90.29	98.43
Ozone Depleting Substances (Thousand Kg)⁶	2014	2013	2012
12.02.04 ODS contained in equipment (CFC 11 equivalent)	3.1	4.0	4.2
ODS Releases From Equipment (CFC 11 equivalent)	0.08	0.12	0.11
Water Use and Discharge	2014	2013	2012
Water Use (Million m3)			
Water Usage (GROSS)	14.9	15.7	16.3
Municipal	9.93	10.19	10.18
Ground Water	4.61	5.16	5.85
Surface Water	0.09	0.1	0
Tankers	0.28	0.21	0
Other Sources	0.	0.02	0.28
Recycled Sources ⁸	0.17	0.34	0.41
Water Discharge (Million m3)			
Total Wastewater Discharged	11.99	9.26	8.77
Recycling	0.16	0.24	0.35
Municipal Sewer	7.31	5.69	4.61
Surface Water	3.99	3.13	3.8
Other	0.53	0.2	0.01
Waste Generated (Million Kg)⁹	2014	2013	2012
Total Waste Generated	158.6	165.7	294.1
Total Beneficial Use Waste ¹⁰	117.9	118.2	85.2

Total Beneficial Use Hazardous Waste	16.7	16.2	10.8
Total Beneficial Use Non-Hazardous Waste	101.1	102.0	74.4
Total Non-Beneficial Use Waste ¹¹	40.7	47.5	47.6
Total Non-Beneficial Use Hazardous Waste	28.3	33.9	32.8
Total Non-Beneficial Use Non-Hazardous Waste	12.4	13.6	14.8
Waste to Landfill¹³	2014	2013	2012
Total Waste Landfill (Exc. Non-Routine)	10.2	10.7	10.2
Hazardous Waste to landfill	0.33	0.39	0.40
Non-Hazardous Waste to landfill	9.86	10.27	9.79
Non Routine Waste¹²	2014	2013	2012
Non-Routine Waste Generated	7.7	5.8	7.1
Non-Routine Waste Disposed	0.92	2.05	1.67
Non-Routine Waste recycled	6.79	3.80	5.43

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GlaxoSmithKline Corporate Responsibility Report 2013 – Environmental Metrics (Detailed) - footnotes

- ¹ 2014 values include some estimated data for December when actual data were not available in time for publication
- ² Biomass was being calculated using the factor for steam, this has been corrected.
- ³ Climate change impact is calculated as CO2 equivalent using the Greenhouse Gas Protocol. Climate change impact for transport is calculated as CO2 (not CO2 equivalent). Each year we review the CO2 factors for electricity and steam and update the data for all years as appropriate using the International Energy Agency Statistics - CO2 from Fuel Combustion
- ⁴ Energy and climate change impact for sales force travel, business travel and transport by air, land and sea are calculated using the Greenhouse Gas Protocol. The measurement is based on distance travelled, not directly on fuel use. For employee air travel we capture all routes globally for individual bookings but only UK and the USA for group bookings. For product logistics we capture all routes globally by air and sea, but by road we only collect EU, USA and Canada. Product distribution by road in the USA and Canada include estimated distance.
- ⁵ We use the factors for climate change emissions and ozone depletion potential from WMO (World Meteorological Organisation), Scientific assessment of ozone depletion: 2006. Chapter 8. Table 8-1 Lifetimes, relative fractional halogen release factors, and Ozone Depletion Potentials for halocarbons. Table 8-2 Direct Global Warming Potentials for selected gases. Refrigeration & Air Conditioning CFC and HCFC Phase Out: Advice on Alternatives & Guidelines for Users, UK DTI. Appendix A.
- ⁶ Each year we review refrigeration equipment inventories for all years and estimate incomplete data. We calculate the probable releases of refrigerant using a factor (2.75% mass) from the British Refrigeration Association. GSK's methodology used to calculate scope 1 emissions of refrigerant gases also considers the GWP of CFC in addition to those required by following the GHG protocol.
- ⁷ The GHG protocol states that emissions from fermentation should be reported separately and outside of the 3 scopes (scope 1, 2 & 3). This is a change in approach in the GHG Protocol which had previously only specified carbon dioxide emissions from the combustion of biologically sequestered carbon to be reported separately. We have removed these emissions from our 2014 data.
- ⁸ Recycled water is not included in total water consumption.
- ⁹ In 2013 we have revised our hazardous waste categories. Hazardous solvent waste recycled on site is no longer included in total hazardous waste generated.
- ¹⁰ Beneficial use waste is waste disposed with some environmental benefit ie recycling, re-use, or incineration with energy recovery.
- ¹¹ Non beneficial use waste is waste disposed by either incineration with no energy recovery, or sent to landfill.
- ¹² Non-routine waste includes construction and demolition rubble and is not included in hazardous or non-hazardous waste calculations and is not included in the scope of verification.