

Carbon Reduction Plan

Supplier name: MSD (Merck Sharp & Dohme LLC, Rahway, NJ, USA)

Publication date: August 2024

Commitment to achieving Net Zero

MSD has committed to a net-zero target for our greenhouse gas (GHG) emissions across our global operations (Scopes 1, 2, and 3) by 2045, aligned with the guidelines of the Science Based Targets initiative (SBTi).

MSD already holds SBTi-approved Near-Term commitments for Scopes 1,2, and 3 (see below), a prerequisite for companies to set a net-zero target.

Baseline Emissions Footprint

Baseline emissions are a record of the greenhouse gases that have been produced in the past and were produced prior to the introduction of any strategies to reduce emissions.
Baseline emissions are the reference point against which emissions reduction can be measured.

Baseline Year: 2019		
Additional Details relating to the Baseline Emissions calculations.		
The 2019 baseline year was selected as the 2019 data set was the latest available during our target setting process.		
Baseline year emissions: 2019 (Global Emissions)		
EMISSIONS	TOTAL (tCO₂e)	
Scope 1	727,300^{1, 12}	
Scope 2	295,600^{2, 12}	
Scope 3 (Included Sources)	6,427,900³	
	<i>Our Scope 3 breakdown is as follows –</i>	
	Category 1 - Purchased goods and services ⁴	4,876,100
	Category 2 - Capital goods ⁴	328,500
	Category 3 - Fuel and energy-related activities not included in Scopes 1 & 2 ^{5,12}	220,200
	Category 4 - Upstream transportation and distribution ⁴	237,400
	Category 5 - Waste generated in operations (excluding recycled and composted waste) ⁶	18,800
	Category 6 - Employee business travel ^{7,12}	327,200
	Category 7 - Employee commuting ⁸	243,700
	Category 9 - Downstream transportation and distribution ^{4,9}	124,800
	Category 11 – Use of sold products ^{10,12}	2,900
	Category 12 - End-of-life treatment of sold products ¹¹	48,300
Total Emissions	7,450,800	

Current Emissions Reporting

Reporting Year: 2023 (Global Emissions)		
EMISSIONS	TOTAL (tCO ₂ e)	
Scope 1	718,400 ^{1, 12}	
Scope 2	184,200 ^{2, 12}	
Scope 3 (Included Sources)	6,184,100 ³	
	<i>Our Scope 3 breakdown is as follows –</i>	
	Category 1 - Purchased goods and services ⁴	4,766,800
	Category 2 - Capital goods ⁴	320,400
	Category 3 - Fuel and energy-related activities not included in Scopes 1 & 2 ^{5,12}	224,000
	Category 4 - Upstream transportation and distribution ⁴	274,200
	Category 5 - Waste generated in operations (excluding recycled and composted waste) ⁶	19,500
	Category 6 - Employee business travel ^{7,12}	387,000
	Category 7 - Employee commuting ⁸	165,100
	Category 9 - Downstream transportation and distribution ⁹	16,200
	Category 11 - Use of sold products ^{10,12}	3,300
	Category 12 - End-of-life treatment of sold products ¹¹	7,600
Total Emissions	7,086,700	

Emissions reduction targets

Acting on climate change is another way we show how we contribute to a healthier world – because climate change affects the social and environmental determinants of health, such as clean air, safe drinking water, sufficient food and secure shelter. MSD has adopted a set of global environmental sustainability targets to help position our Company to succeed in an increasingly resource-constrained world. These were developed to address the rising expectations of our customers, investors, external stakeholders, and employees regarding the environmental impact of our operations and supply chain.

- Reduce our operational greenhouse gas (GHG) emissions (i.e., Scopes 1 & 2) 46% by 2030, from a 2019 baseline.¹³
- Source 100% of our purchased electricity from renewables by 2025.^{13,14}
- Reduce our value chain (Scope 3) GHG emissions by 30% by 2030 from a 2019 baseline.¹³
- MSD has committed to a net-zero target for our greenhouse gas (GHG) emissions across our global operations (Scopes 1, 2, and 3) by 2045, aligned with the guidelines of the Science Based Targets initiative (SBTi).¹³

Carbon Reduction Projects

Completed Carbon Reduction Initiatives

The following environmental management measures and projects have been completed or implemented since the **2019** baseline. The carbon emission reduction from our scope 1 & 2 (market-based) operations equates to **120,300 tCO₂e**, a **12%** reduction against the **2019** baseline and the below measures will be in effect when performing the contract. In 2023, our Scope 3 GHG emissions decreased as compared to 2022 (146,000 tCO₂e). While performance was mixed across our reported categories, a decrease in our largest category, Purchased Goods and Services, led to an overall decrease from 2022.

In 2023, 88% of our purchased electricity in the UK was from renewable sources. By 2025, in alignment with our environmental commitments, we will source 100% of our purchased electricity from renewable sources.

Our UK manufacturing locations hold accredited energy management (ISO 50001) and environmental management systems (ISO 14001). To help meet our climate commitments, manufacturing sites have completed the 'Low Carbon Transition Playbook', a tool to help create a site strategy by identifying gaps, uncovering opportunities, and creating a common platform for assessment of levers and resource deployment across a range of sustainability initiatives.

MSD is actively working to reduce the CO₂e emissions associated with our company vehicles in the UK and globally. Compared to our 2019 baseline, the average emissions (g CO₂e/Km) of our UK running fleet have reduced by 53%. The average emissions (g CO₂e/Km) of new company vehicles ordered in 2023 are 83% lower compared to 2019.

MSD has committed to future consolidation of our London operations, into a new building for both laboratories and offices. In this building, MSD aspires to fit out to a LEED Platinum and BREEAM Outstanding level with Well 2.0 certification. The landlord is also constructing the building shell and core aligned with strict total embedded carbon targets and low energy operational goals as set out in Planning by Camden Council. The building will be electric-only (excluding backup supply), utilizing 100% purchased electricity from renewable sources. MSD also seeks to implement My Green Lab certification in the building for our operations.

For the most up-to-date global progress versus our targets, see our latest MSD Impact Report ¹³.

Declaration and Sign Off

This Carbon Reduction Plan has been completed in accordance with PPN 06/21 and associated guidance and reporting standard for Carbon Reduction Plans.

Emissions have been reported and recorded in accordance with the published reporting standard for Carbon Reduction Plans and the GHG Reporting Protocol corporate standard¹⁵ and uses the appropriate Government emission conversion factors for greenhouse gas company reporting^{16,17}.

Scope 1 and Scope 2 emissions have been reported in accordance with SECR requirements, and the required subset of Scope 3 emissions have been reported in accordance with the published reporting standard for Carbon Reduction Plans and the Corporate Value Chain (Scope 3) Standard¹⁸.

This Carbon Reduction Plan has been reviewed and signed off by the Managing Director of MSD UK and the head of Global Safety and the Environment and has the endorsement of our Company's Executive Management Team.

Signed on behalf of the Supplier:

Marc Steinman

Electronically signed by: Marc Steinman
Reason: Approved
Date: Aug 27, 2024 16:15 EDT

Date: Aug 27, 2024



Electronically signed by: Benjamin Lucas
Reason: Approved
Date: Sep 2, 2024 10:57 GMT+1

Date: Sep 2, 2024

Footnotes:

- ¹ Global Scope 1 emissions in accordance with the WRI Greenhouse Gas Protocol. Scope 1 emissions are direct greenhouse gas (GHG) emissions that occur from sources that are controlled or owned by an organization (e.g., emissions associated with fuel combustion in boilers, furnaces or vehicles).
- ² Global Scope 2 market-based emissions in accordance with the WRI Greenhouse Gas Protocol. Scope 2 emissions are indirect GHG emissions associated with the purchase of electricity, steam, heat or cooling.
- ³ Global Scope 3 emissions in accordance with the WRI Greenhouse Gas Protocol. Scope 3 emissions are the result of activities from assets not owned or controlled by the reporting organization, but that the organization indirectly impacts in its value chain.
- ⁴ Emissions are based on primary data where available and an economic input-output model performed by Climate Earth, Inc using spend data.
- ⁵ Emission factors from Argonne National Laboratory's GREET Model were used in conjunction with primary fuel and energy-use data. Does not include purchased cooling water.
- ⁶ Primary-waste data were used with the U.S. EPA's WARM Model. Including recycled and composted waste in these calculations would result in negative emissions in 2019 (-62,400 MT CO₂e) and 2023 (-51,500 MT CO₂e).
- ⁷ Based on primary travel vendor data where available employee-reimbursable mileage utilizing UK Defra factors, and an economic input-output model performed by Climate Earth, Inc using spend data. Note that business travel has returned to pre-pandemic levels.
- ⁸ 2020-2023 reductions were caused by shifts to remote and hybrid working models.
- ⁹ Shifted from using spend data modelling to using of primary vendor data in 2023 for the products shipped via our wholesalers at the country level through different modes of transportation and 2023 UK Defra factors.
- ¹⁰ Due to recent acquisitions, we are currently evaluating the applicability of additional products to this category. This category currently includes the impacts of our Animal Health products ENGEMYCIN® (oxytetracycline), NEO SPRAY CAF® (oxytetracycline), OXYTETRIN® LA (oxytetracycline). We have also included the energy use impacts of the USA 2019-2023 sales of our Biomark products.
- ¹¹ Calculated assuming that all primary, secondary and tertiary packaging purchased was disposed of by our customers. Packaging material data was used with the U.S. EPA's WARM Model.
- ¹² We have received limited assurance annually beginning in our baseline year of 2019 of our Scopes 1, 2 GHG emissions and several Scope 3 GHG emission categories as defined by the World Resources Institute's Greenhouse Gas Protocol. In 2023, ERM CVS provided limited assurance for Scope 3 Categories 3, 11 and the primary activity data portion of Category 6 (187,900 MT CO₂e or 49% of the total category), which includes primary vendor and employee reimbursable data. The total GHG emissions reported for Category 6 also includes non-primary travel vendor data emissions which were based on our 2023 third-party spend data and an Economic Input-Output Model performed by Climate Earth, Inc.
- ¹³ <https://www.msd.com/company-overview/sustainability/>
- ¹⁴ We have defined "purchased electricity" as electricity sourced from external suppliers as well as renewable electricity that was generated and utilized on site, where we retained the renewable attributes or where we have obtained renewable attributes through contract.
- ¹⁵ <https://ghgprotocol.org/corporate-standard>
- ¹⁶ <https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting>
- ¹⁷ <https://www.epa.gov/climateleadership/ghg-emission-factors-hub>
- ¹⁸ <https://ghgprotocol.org/standards/scope-3-standard>