

Carbon Reduction Plan

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

Publication date: January 2023

Commitment to achieving Net Zero

MSD has committed to the Science Based Target initiative (SBTi) to set a science-based Net Zero target for its global operations, in alignment with the Paris Agreement with a target date no later than 2050.

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 (UK emissions)											
EMISSIONS	TOTAL (tCO₂e)										
Scope 1	4,450¹										
Scope 2	5,390²										
Scope 3 (Included Sources)	31,680 <i>Our Scope 3 breakdown is as follows –</i>										
	<table border="1"> <tr> <td>Upstream transportation and distribution³</td> <td>10,430</td> </tr> <tr> <td>Waste generated in operations^{4,5}</td> <td>310</td> </tr> <tr> <td>Business travel^{6,7}</td> <td>8,900</td> </tr> <tr> <td>Employee commuting⁸</td> <td>6,620</td> </tr> <tr> <td>Downstream transportation and distribution⁹</td> <td>5,420</td> </tr> </table>	Upstream transportation and distribution ³	10,430	Waste generated in operations ^{4,5}	310	Business travel ^{6,7}	8,900	Employee commuting ⁸	6,620	Downstream transportation and distribution ⁹	5,420
Upstream transportation and distribution ³	10,430										
Waste generated in operations ^{4,5}	310										
Business travel ^{6,7}	8,900										
Employee commuting ⁸	6,620										
Downstream transportation and distribution ⁹	5,420										
Total Emissions	41,520										

Current Emissions Reporting

Reporting Year: 2021 (UK emissions)		
EMISSIONS	TOTAL (tCO ₂ e)	
Scope 1	4,330 ¹	
Scope 2	1,390 ²	
Scope 3 (Included Sources)	25,470	
	<i>Our Scope 3 breakdown is as follows –</i>	
	Upstream transportation and distribution ³	11,020
	Waste generated in operations ^{4,5}	220
	Business travel ^{6,7}	4,740
	Employee commuting ⁸	2,300
	Downstream transportation and distribution ⁹	7,190
Total Emissions	31,190	

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.¹⁰
- Achieve carbon neutrality across our operations by 2025 (Scopes 1 & 2 emissions).¹⁰
- Source 100% of our purchased electricity from renewables by 2025.¹¹
- Reduce our value chain (Scope 3) GHG emissions by 30% by 2030, from a 2019 baseline.¹²
- MSD has committed to the Science Based Target initiative (SBTi) to set a science-based Net Zero target for its global operations, in alignment with the Paris Agreement with a target date no later than 2050

Carbon Reduction Projects

Completed Carbon Reduction Initiatives

The following environmental management measures and projects have been completed or implemented since the **2019** baseline. The UK carbon emissions reduction equate to **10,330 tCO_{2e}**, a **25%** reduction against the UK **2019** baseline and the below measures will be in effect when performing the contract.

In 2021, 65% 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). Electric vehicle (EV) charging infrastructure is being installed for our employees and visitors. Four charging points were installed during 2021, with eight now available at the Milton Keynes location. 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. Based on the outputs of the Low Carbon Transition Playbook, the UK manufacturing locations have established a Carbon Neutrality Roadmap.

MSD is actively working to reduce the CO_{2e} emissions associated with our company vehicles in the UK and globally. Compared to our 2019 baseline, the average emissions (g CO_{2e}/Km) of our UK running fleet have reduced by 4%. The average emissions (g CO_{2e}/Km) of new company vehicles ordered in 2021 are 31% 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 back-up supply), utilizing 100% purchased electricity from renewable sources. MSD also seeks to implement Green Lab certification in the building for our operations.

For the most up-to-date global progress versus our targets see [MSD ESG Progress Report](#).

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 standard¹³ and uses the appropriate Government emission conversion factors for greenhouse gas company reporting¹⁴.

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) Standard¹⁵.

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: Approval
Date: Jan 30, 2023 13:58 EST

Date: Jan 30, 2023

 Electronically signed by: Benjamin Lucas
Reason: Approved
Date: Jan 31, 2023 18:18 GMT

Date: Jan 31, 2023

Footnotes:

- ¹ UK Scope 1 emissions in accordance with the WRI Greenhouse Gas Protocol,
- ² UK Scope 2 market-based emissions in accordance with the WRI Greenhouse Gas Protocol.
- ³ Based on UK third-party spend data and economic input-output model performed by Climate Earth, Inc.
- ⁴ Primary-UK waste data was used with the U.S. EPA's WARM Model (<https://www.epa.gov/warm>).
- ⁵ Including recycled and composted waste in these calculations would result in negative emissions
- ⁶ Emissions are based on primary UK vendor data where available and economic input-output model performed by Climate Earth, Inc., using spend data.
- ⁷ Based on primary UK travel vendor data, employee-reimbursable mileage and UK Defra factors.
- ⁸ Based on an assumed average data method per UK employee per year
- ⁹ Emissions were calculated using our UK "Upstream transportation and distribution" spend data as a worst-case estimate entered into the WRI Quantis tool. We assumed that all "downstream" material would first have been stored, transported and handled "upstream."
- ¹⁰ 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). Scope 2 emissions are indirect GHG emissions associated with the purchase of electricity, steam, heat or cooling.
- ¹¹ 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.
- ¹² 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.
- ¹³ <https://ghgprotocol.org/corporate-standard>
- ¹⁴ <https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting>
- ¹⁵ <https://ghgprotocol.org/standards/scope-3-standard>