

Carbon Reduction Plan

Supplier name: ZAP Surgical Systems, Inc

Published: 16th August 2024

Commitment to achieving Net Zero

ZAP Surgical Systems, Inc is committed to achieving Net Zero emissions across its UK and global operations by 2045.

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: 2023 (1st January to 31st December)	
Additional Details relating to the Baseline Emissions calculations.	
<p>Long-term, ZAP's focus is on developing a sustainable business operation globally, however in the short-term this Carbon Reduction Plan details our current approach to reaching Net Zero for our UK operations only.</p> <p>ZAP Surgical Systems' emissions reporting for its UK territorial emissions began in the 2023 reporting year. ZAP currently has no physical footprint in the UK, but employs two members of UK-based staff who work remotely. Therefore the only emissions category relevant to UK operations under these measures is Business Travel (which largely consists of flights to/from overseas locations). No physical product installations occurred in the UK during this reporting period, so UK territorial transportation and distribution emissions were also zero.</p>	
Baseline year emissions:	
EMISSIONS	TOTAL (tCO_{2e})
Scope 1	0.00
Scope 2	0.00 (Location-based)
Scope 3 (Included Sources)	26.31 Upstream Transportation and Distribution: 0.00# Waste Generated in Operations: 0.00 Business Travel: 26.31 Staff Commuting: 0.00 Downstream Transportation and Distribution: 0.00
Total Emissions	26.31

Current Emissions Reporting

Reporting Year: 2023 (1st January to 31st December)	
EMISSIONS	TOTAL (tCO ₂ e)
Scope 1	0.00
Scope 2	0.00 (Location-based)
Scope 3 (Included Sources)	26.31 Upstream Transportation and Distribution: 0.00 Waste Generated in Operations: 0.00 Business Travel: 26.31 Staff Commuting: 0.00 Downstream Transportation and Distribution: 0.00
Total Emissions	26.31

Emissions reduction targets

ZAP Surgical Systems has committed to a long-term target of achieving Net Zero in the UK and globally by 2045.

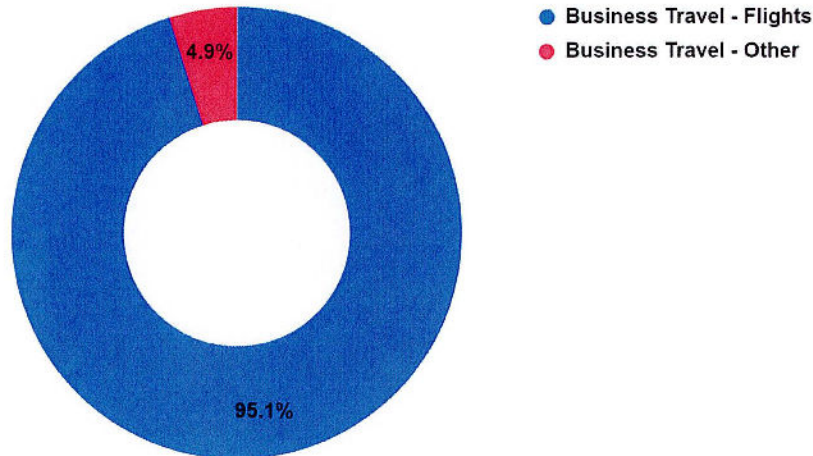
In practice, this equates to a 90% absolute reduction in Scope 1, 2 and 3 emissions by 2045 from our 2023 baseline. The remaining 10% of emissions will be balanced by emissions removals to achieve net zero.

As our emissions reporting continues to develop, we will look to develop near-term targets to ensure we remain on-track for our 2045 objective.

Carbon Reduction Projects

- 1) Stakeholder awareness / promotion:** Promote awareness to employees and external stakeholders, including potential customer, to encourage "green thinking"
- 2) Measuring and monitoring Service Travel:** To investigate where travel reduction opportunities may exist through continuous improvements to the reliability of the ZAP-X device.

Emissions Breakdown 2023



Currently, ZAP's UK-based emissions are generated entirely by flights to/from the UK (25.02 tCO₂e, including radiative forcing), and travelling to/from airports (1.29 tCO₂e).

The existing UK based staff currently support many emerging markets including European countries, India, Middle East and Africa. While this support is likely to continue into the foreseeable future, the need to travel to these markets will decline as those markets grow and are managed by local resources with remote support from UK and USA provided as necessary.

Of course, there will always be a need for staff with special expertise to travel globally to present at national and international events. This will be monitored annually as part of our Carbon Reduction strategy.

Consequently, the UK organisation's carbon footprint is expected to increase slightly in the short-term. This will enable the existing UK based employees to support commercial opportunities and the associated business growth in new and emerging markets, thereby providing innovative, world-class radiosurgery solutions to people in many geographic locations and improving patient outcomes worldwide.

To keep flight-related emissions to a minimum, our UK-based staff endeavour to fly Economy Class, as was the case in 2023. It is worth noting that, flying Business Class in 2023 would have generated an additional 29.74 tCO₂e, which would have more than doubled our total UK emissions.

Remote Working

ZAP's UK business operations are expected to develop in line with commercial opportunities in the UK. Where necessary, UK-based staff supporting UK customers will be home-based and, ideally, located close to the customer sites for which they are responsible, thereby significantly reducing and/or eliminating our Scope 1, 2 and 3 emissions while supporting a growing UK customer base.

Global Operations

At ZAP Surgical Systems, we recognize the urgent need to address climate change and reduce our environmental impact. As a leader in stereotactic radiosurgery, we are committed to achieving carbon neutrality by 2045. Our pledge includes the following key actions:

Reducing Emissions: We will continuously assess and minimise our carbon emissions across all aspects of our operations, from manufacturing to distribution.

Renewable Energy: We will transition to renewable energy sources for our facilities, aiming to power our operations with clean energy.

Innovation: We will invest in research and development to create more energy-efficient products and technologies.

Our Product

For our customers, the ZAP-X device is a significantly more environmentally friendly proposition than its competitors because it utilizes 50% lower energy beam technology than all competitor linear accelerator products (3MV versus 6MV minimum).

The ZAP-X solution avoids the use of cobalt-60 and thereby reduces environmental impact by minimizing radioactive waste.

The ZAP-X is the first and only vault-free Stereotactic Radiosurgery (SRS) delivery system, eliminating \$1M+ in infrastructure for our customers and nearly 700 cubic meters of high-density concrete – thereby significantly reducing the carbon footprint synonymous with the production of cement and related use of fossil fuels.

The ZAP-X device requires fewer fractions per treatment compared to competitor SRS solutions and, comparative to invasive surgical procedures, the ZAP-X solution reduces the amount of time required for the patient to recover. These technical advancements support ZAP customers to achieve their own sustainability goals since the ZAP-X device treatment requires fewer trips to the clinical site per treatment for staff, patients and patient visitors.

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 standard¹ and uses the appropriate Government emission conversion factors for greenhouse gas company reporting².

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) Standard³.

This Carbon Reduction Plan has been reviewed by senior management and approved by Chris Brown, the Vice President of Regulatory Affairs / Quality Assurance.

Signed on behalf of the Supplier:


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Date: AUGUST 12, 2024

¹ <https://ghgprotocol.org/corporate-standard>

² <https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting>

³ <https://ghgprotocol.org/standards/scope-3-standard>