

# Carbon Reduction Plan

Supplier name: Sentinel Small Unmanned Aviation Systems Limited

Publication date: 4<sup>th</sup> February 2022

## Commitment to achieving Net Zero

Sentinel Unmanned Ltd is committed to achieving Net Zero emissions by 2050.

## 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.

<b>Baseline Year: 2021</b>	
<b>Additional Details relating to the Baseline Emissions calculations.</b>	
<i>This is the first year Sentinel Unmanned has provided details of our organisation's baseline emissions.</i>	
<i>Scope 3 emissions have been included, with homeworking being the only element of this scope.</i>	
<b>Baseline year emissions: 2021</b>	
<b>EMISSIONS</b>	<b>TOTAL (tCO<sub>2</sub>e)</b>
Scope 1	4.10
Scope 2	0.42
Scope 3 (Included Sources)	1.50 - Homeworking
<b>Total Emissions</b>	<b>6.02</b>

## Current Emissions Reporting

Reporting Year: 2021	
EMISSIONS	TOTAL (tCO <sub>2</sub> e)
Scope 1	4.10
Scope 2	0.42
Scope 3 (Included Sources)	1.5 - Homeworking
<b>Total Emissions</b>	<b>6.02</b>

### Emissions reduction targets

Sentinel Unmanned is committed to reducing our emissions around the baseline year by implementing the following:

Sentinel Unmanned is aiming to transition to a renewable energy tariff to reduce emissions associated with electricity consumption within the next two years. Furthermore, when acquiring new vehicles, Sentinel Unmanned is committed to moving away from petrol & diesel fuel vehicles in favour of electric; this is in line with the government net zero strategy to phase out the sale of new petrol & diesel vehicles by 2030.

Sentinel Unmanned aim to reduce their emission by 50% by 2030 on a tCO<sub>2</sub>e/£M turnover. By setting targets against a unit of turnover, these targets can be re-assessed if met before the anticipated deadline, or as the company grows.

We project that carbon emissions will decrease over the next eighteen years to 0.3 tCO<sub>2</sub>e by 2040. This is a reduction of 95%.

### Carbon Reduction Projects

#### Completed Carbon Reduction Initiatives

The following environmental management measures and projects have been completed or implemented since the 2021 baseline. The measures will be in effect when performing the contract.

Sentinel Unmanned has implemented the following environmental management measures:

- Our company is accredited with the following certification scheme: ISO14001

- Sentinel Unmanned has implemented LED lighting across its site
- Sentinel Unmanned has made changes to internal policies resulting in a reduction in company travel

In conjunction with these internal policies, Sentinel Unmanned has undertaken a contract on behalf of Nature Scot to significantly reduce the emissions associated with the surveying of deer populations. Traditionally, this work is conducted by helicopters or fixed wing aircraft, which are highly emissions intensive. The average helicopter burns 180 litres of fuel per hour. When compared to the unmanned aerial vehicles employed by Sentinel Unmanned, the fuel-based unmanned aerial vehicle (UAV) burns only 2 litres per hour. This demonstrates a massive reduction in fuel consumption of 178 litres per hour (98.9%). Moreover, battery powered UAVs utilised by Sentinel Unmanned have the potential to further reduce emissions. If charged from a renewable source, they have the potential to significantly reduce the emissions associated with this activity, alongside similar applications across multiple industries.

In the future Sentinel Unmanned will implement further measures such as:

- The installation of energy saving lighting controls at their site in Poole.
- Sentinel Unmanned is actively seeking to utilise unmanned aerial systems with a low carbon output to replace high intensity vehicles, as outlined in the current project with Nature Scot. This is an area with great potential for significant emissions reductions, especially in regard to the utilisation of UAVs in place of helicopters and fixed wing aircraft for surveying, monitoring, search and rescue, and communications enhancement – all of which are traditionally high-cost and emission intensive activities.

## Declaration and Sign Off

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

Emissions have been reported and recorded in accordance with the published reporting standards for Carbon Reduction Plans and the GHG Reporting Protocol corporate standard<sup>1</sup>. It uses the appropriate Government emission conversion factors for greenhouse gas company reporting<sup>2</sup>.

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) Standard<sup>3</sup>.

This Carbon Reduction Plan has been reviewed and signed off by the board of directors (or equivalent management body).

### Signed on behalf of the Supplier:



Managing Director

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Date: 7<sup>th</sup> January 2022.

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

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

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