



# Carbon Impact Report 2024-2025

Eco Ninjas Ltd

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Prepared by  
**The Carbon Stamp**

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# 1. Introduction & Importance

## Supporting the NHS Net Zero Journey

**Eco Ninjas Ltd** is transforming hospital theatres by replacing disposable theatre caps with reusable, high-quality fabric hats featuring "name and role" embroidery. This innovation enhances patient safety, reduces anxiety, and improves communication among surgical teams.

Each year, millions of disposable theatre caps end up in landfill, with an estimated 110 million discarded in 2023 alone. Given that materials like polyester can take up to 200 years to decompose, switching to reusable caps significantly reduces waste.

Eco Ninjas Ltd is committed to the NHS Net Zero Supplier Roadmap, which targets a net-zero health service by 2045.

In partnership with **The Carbon Stamp**, this report provides an overview of Eco Ninjas Ltd's GHG emissions, highlights areas for improvement, and outlines steps to further reduce its environmental impact.



## The Carbon Stamp - Our Mission

“At The Carbon Stamp, our mission is straightforward - **help businesses calculate and reduce their carbon footprint.**”

Our carbon footprint assessment service is designed for all businesses, regardless of their size or sector. Transitioning to sustainability should be direct and achievable for all.”

**- Frazer Holroyd, Founder**

## The Importance of the NHS Net Zero Supplier Roadmap

The **NHS Net Zero Supplier Roadmap** outlines clear requirements for suppliers to help the NHS achieve its goal of becoming a net zero health service. As part of this initiative, all NHS suppliers are required to measure and report their carbon emissions and create a Carbon Reduction Plan (CRP) that aligns with the NHS's environmental targets. Key areas of focus include:

- **Scope 1:** Direct emissions from sources owned or controlled by the supplier, such as company vehicles or on-site fuel use.
- **Scope 2:** Indirect emissions from purchased energy, such as electricity, heating, or cooling.
- **Scope 3:** A required subset of indirect emissions, including employee commuting, business travel, waste generated in operations, and transportation (upstream and downstream).

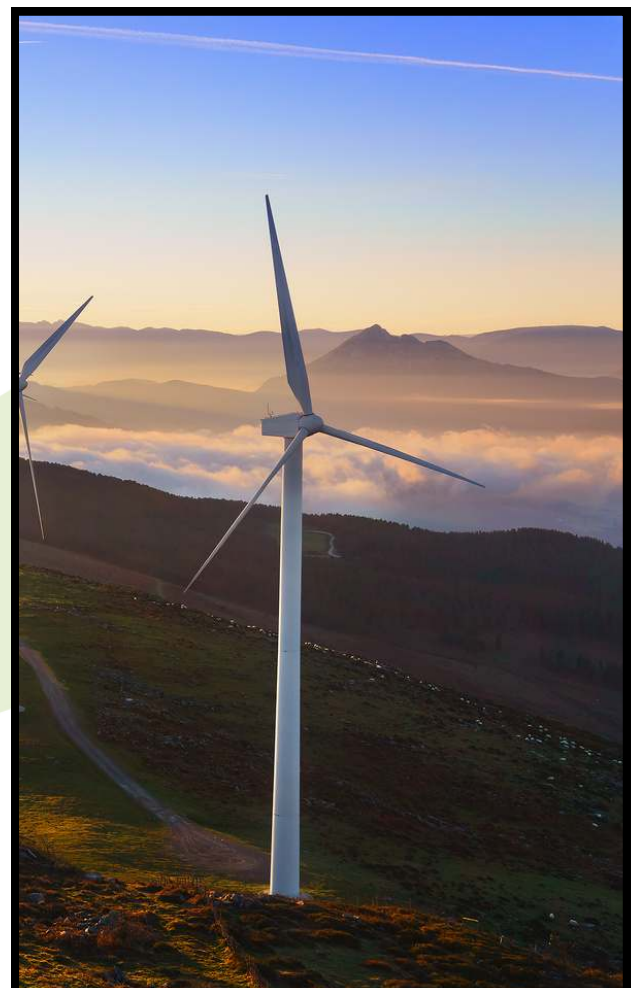
To remain eligible as an NHS supplier, companies like Eco Ninjas must commit to reducing their carbon footprint in line with these requirements and provide a CRP detailing specific actions to achieve net zero by 2045.

### Why This Matters?

By meeting these standards, Eco Ninjas are not only ensuring compliance with NHS procurement policies but also taking responsibility for its environmental impact.

Climate change poses significant risks to global health and healthcare systems, and reducing emissions is critical to mitigating these effects.

Eco Ninjas' commitment to carbon reduction reflects its dedication to environmental stewardship. By participating in the Greener NHS initiative, they are playing a vital role in creating a more sustainable healthcare system and demonstrating leadership in the fight against climate change.



## 2. Carbon Impact Snapshot

**Company Name:** Eco Ninjas Limited

**Company Number:** 13008231

**Reporting Period:** 1st December 2023 - 30th November 2024

**Organisational Boundary:** Operational Control

**Base Year:** 2023/2024 (first year of calculation)

**Total Emissions:** **423.66 kgCO<sub>2</sub>e (Carbon Dioxide equivalent)**

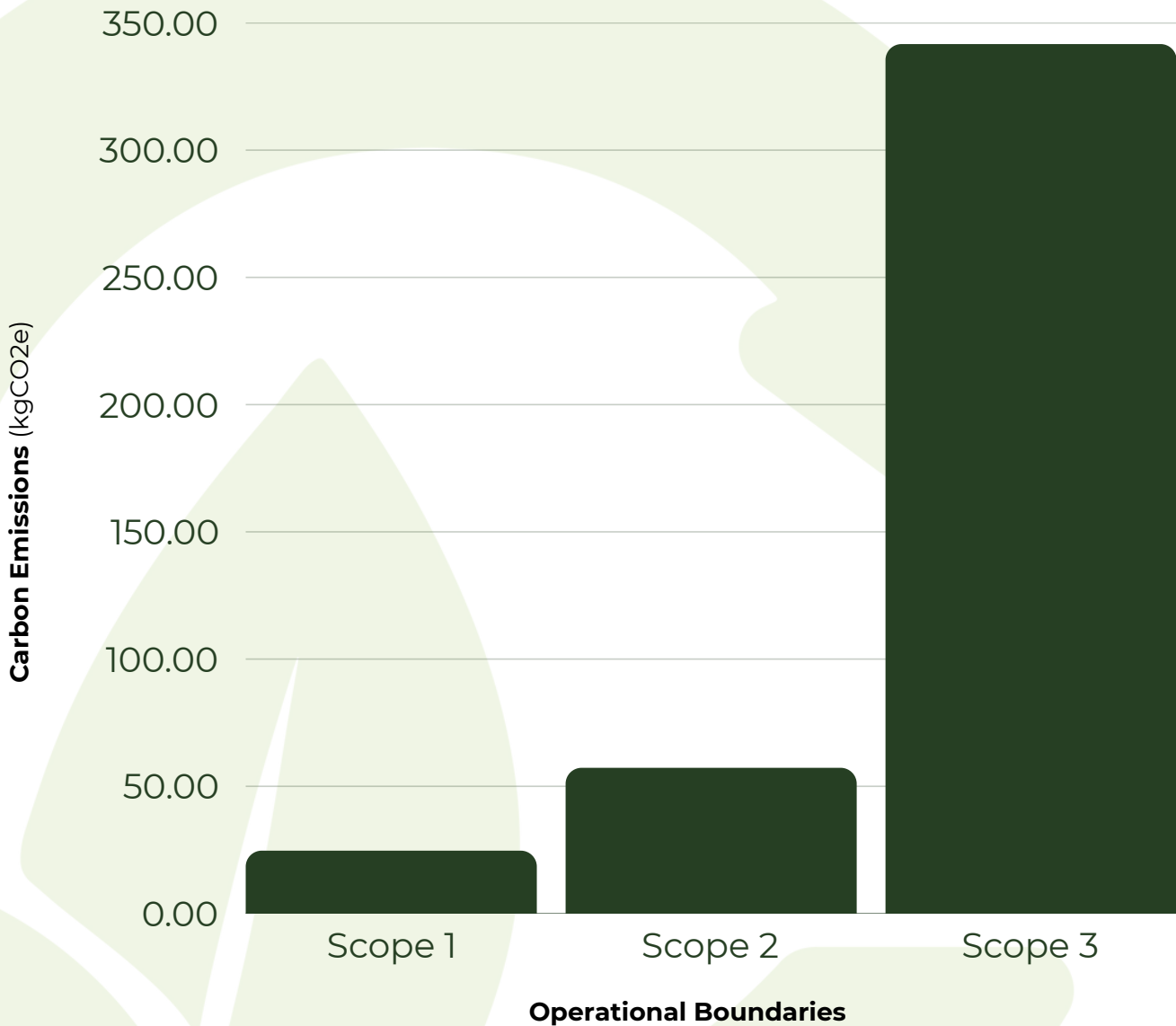
### 2.1 Emissions Snapshot Table

In this snapshot, we provide a concise overview of **Eco Ninjas'** GHG emissions within their operational boundary, categorised by Scope 1, Scope 2, and defined subset of Scope 3 categories as per the **GHG Protocol Standards** and **NHS Net Zero Requirements**. The table below shows the respective emissions, highlighting the proportional contributions of each scope to the company's overall emissions:

Emission Scopes	kgCO <sub>2</sub> e	%
Scope 1	24.71	5.83%
Scope 2	57.27	13.52%
Scope 3	341.68	80.65%
<b>Total</b>	<b>423.66</b>	

You can find a detailed breakdown of Scope 1 and 2 activities and an in-depth analysis of the required subset of categories within Scope 3 in **Section 4**, offering insights into the specific areas of impact and opportunities for targeted emission reduction strategies.

## 2.2 Carbon Footprint Breakdown



The carbon footprint assessment for Eco Ninjas Ltd highlights total emissions of **423.66 kg CO<sub>2</sub>e**, with Scope 3 emissions representing the largest share at **80.65%**, driven by business travel, waste generation, and transportation. Scope 2 emissions from electricity consumption in home offices account for **13.52%**, while Scope 1 emissions, primarily from home gas usage, contribute **5.83%**.

Eco Ninjas Ltd's emissions profile reflects its **remote operational structure**, with most emissions arising from external processes. The dominance of Scope 3 emissions, particularly from business travel, highlights the importance of optimising transport strategies, reducing waste, and engaging suppliers on sustainability improvements. This report serves as a baseline for identifying opportunities to lower emissions while supporting sustainability efforts in the healthcare sector

# 3. Methodology & Emission Factors



## 3.1 Standards Chosen

The methodology used in this report adheres to the GHG Protocol Corporate Standard and UK Government emission factors provided by the Department for Energy Security & Net Zero issued 8th July 2024. (DESNZ, 2024). These frameworks ensure accuracy, reliability, and international recognition in the measurement and management of carbon emissions.

**GHG Protocol:** The globally recognised standard for calculating and managing greenhouse gas emissions, offering a comprehensive framework for businesses.

**NHS Net Zero Supplier Requirements:** Although not a formal standard, the NHS Net Zero Supplier Roadmap outlines clear guidelines for suppliers to align with the NHS's commitment to achieving net zero emissions by 2045. This report has been specifically designed to meet these requirements, which include:

- Reporting Scope 1 and 2 emissions, along with a required subset of Scope 3 emissions: business travel, employee commuting, waste generated in operations, upstream transportation and distribution, and downstream transportation and distribution
- Publishing a Carbon Reduction Plan (CRP) with clear targets for emissions reductions.

## 3.2 Operational Boundaries

To ensure accuracy, this report follows the operational control approach, capturing emissions from activities where Eco Ninjas has direct authority and influence. Emissions are categorised into Scope 1, Scope 2, and the required subset of Scope 3 emissions, as outlined by the NHS Net Zero Supplier Roadmap. Emissions are categorised as follows:

- **Scope 1:** Direct emissions from sources controlled by Eco Ninjas Ltd, primarily from home gas usage for heating in remote work setups.
- **Scope 2:** Indirect emissions from purchased electricity used in home offices.
- **Scope 3:** Indirect emissions from the value chain, including business travel, waste generation, and the transportation of raw materials and finished products.

### 3.3 Data Collection

Data for this report was gathered through close collaboration with the Eco Ninjas Ltd team and their supply chain partners at Northumbria Manufacturing Hub. Given Eco Ninjas Ltd's small team of two, direct engagement allowed for a clear understanding of operational activities and ensured accurate data collection.

Primary data was sourced wherever possible, particularly for outbound shipments, production waste, and energy use. Where direct data was unavailable, industry averages and reasonable estimations were applied, with all assumptions clearly outlined in the following section.

### 3.4 Emission Calculation

After analysing the data from the core survey, we calculated the total emissions using the most recent UK DESNZ and product/service-specific emission factors. This ensured our calculations are accurate and aligned with current standards. The client-supplied data, taken from the core and employee survey, is applied in the equation below to determine the organisation's total GHG emissions

$$\text{Activity Data} \times \text{Emissions Factor} = \text{GHG Emissions}$$

### 3.5 Assumptions & Limitations

- Home energy usage was allocated based on the proportion of household space used for work and the number of hours worked per day. This approach provides a reasonable estimate but does not account for variations in heating and electricity use at different times of the day or seasonal fluctuations.

## 4. Detailed Carbon Impact Analysis

### 4.1 Scope Analysis

Eco Ninjas Ltd's total carbon emissions for the reporting period 1st December 2023 to 30th November 2024 amount to **423.66 kg CO<sub>2</sub>e**, as detailed in Section 2. This section provides a breakdown of emissions across Scope 1, Scope 2, and Scope 3 categories.

Emission Categories	kg CO <sub>2</sub> e	% of Total Emissions
<b>Scope 1</b>	<b>24.71</b>	<b>5.83%</b>
Mains Gas	24.71	
<b>Scope 2</b>	<b>57.27</b>	<b>13.52%</b>
Purchased Electricity	57.27	
<b>Scope 3</b>	<b>341.68</b>	<b>80.65%</b>
Upstream Transportation and Distribution	41.61	9.82%
Waste Generated in Operations	28.93	6.83%
Business Travel	254.42	60.05%
Employee Commuting	0.00	0.00%
Downstream Transportation and Distribution	16.73	3.95%
<b>Total all Scopes</b>	<b>423.66</b>	

## 4.2 Scope 1 Analysis

Scope 1 emissions for Eco Ninjas Ltd total **24.71 kg CO<sub>2</sub>e**, accounting for **5.83%** of the organisation's overall emissions. These emissions originate solely from mains gas used for heating in the home offices of Eco Ninjas Ltd's remote team.

As a fully remote business, Eco Ninjas Ltd does not own or operate facilities, vehicles, or other direct sources of emissions. All product manufacturing is outsourced to Northumbria Manufacturing Hub, meaning there are no on-site combustion processes or industrial activities contributing to Scope 1.

## 4.3 Scope 2 Analysis

Scope 2 emissions for Eco Ninjas Ltd total **57.27 kg CO<sub>2</sub>e**, accounting for **13.52%** of the organisation's overall emissions. These emissions originate entirely from purchased electricity used in the home offices of Eco Ninjas Ltd's remote team.

As a remote business, Eco Ninjas Ltd does not operate from a dedicated office space, meaning electricity use is limited to home working environments.

There are opportunities to further reduce Scope 2 emissions by switching to 100% renewable electricity tariffs where not already in place.



## 4.4 Scope 3 Analysis

Scope 3 emissions make up **80.65%** of Eco Ninjas Ltd's carbon footprint, totalling **341.68 kg CO<sub>2</sub>e**. These emissions are primarily driven by business travel and transportation-related activities.

### 4.4.1 Upstream Transportation and Distribution:

Emissions from upstream transportation and distribution total **41.61 kg CO<sub>2</sub>e**, resulting from the shipment of raw materials to Northumbria Manufacturing Hub for production.

During this reporting period, materials were sourced from Pakistan and transported via sea and road freight to the UK. Given the nature of the supply chain, emissions were estimated using total material weight and average transportation distances, based on data provided by the supply chain team at Northumbria Manufacturing Hub.

### 4.4.2 Waste Generated in Operations:

Waste emissions total **28.93 kg CO<sub>2</sub>e**. These emissions stem from offcuts, packaging waste, and other material disposal during the hat manufacturing process. As precise waste breakdowns were unavailable, a proportional estimate was made based on Eco Ninjas Ltd's share of total production. Additionally, home waste emissions from employees working remotely were estimated using local district council data, ensuring alignment with available regional waste disposal factors.

### 4.4.3 Business Travel:

Business travel is the largest Scope 3 category, contributing **254.42 kg CO<sub>2</sub>e**. This results primarily from the use of **electric vehicles** for business-related travel to client sites. While emissions are significantly lower than those from petrol or diesel vehicles, this remains a key area for further reductions as the UK's electricity grid continues to decarbonise.

### 4.4.4 Employee Commuting:

As Eco Ninjas Ltd operates entirely remotely, **no emissions** from employee commuting have been recorded.

#### **4.4.5 Downstream Transportation and Distribution:**

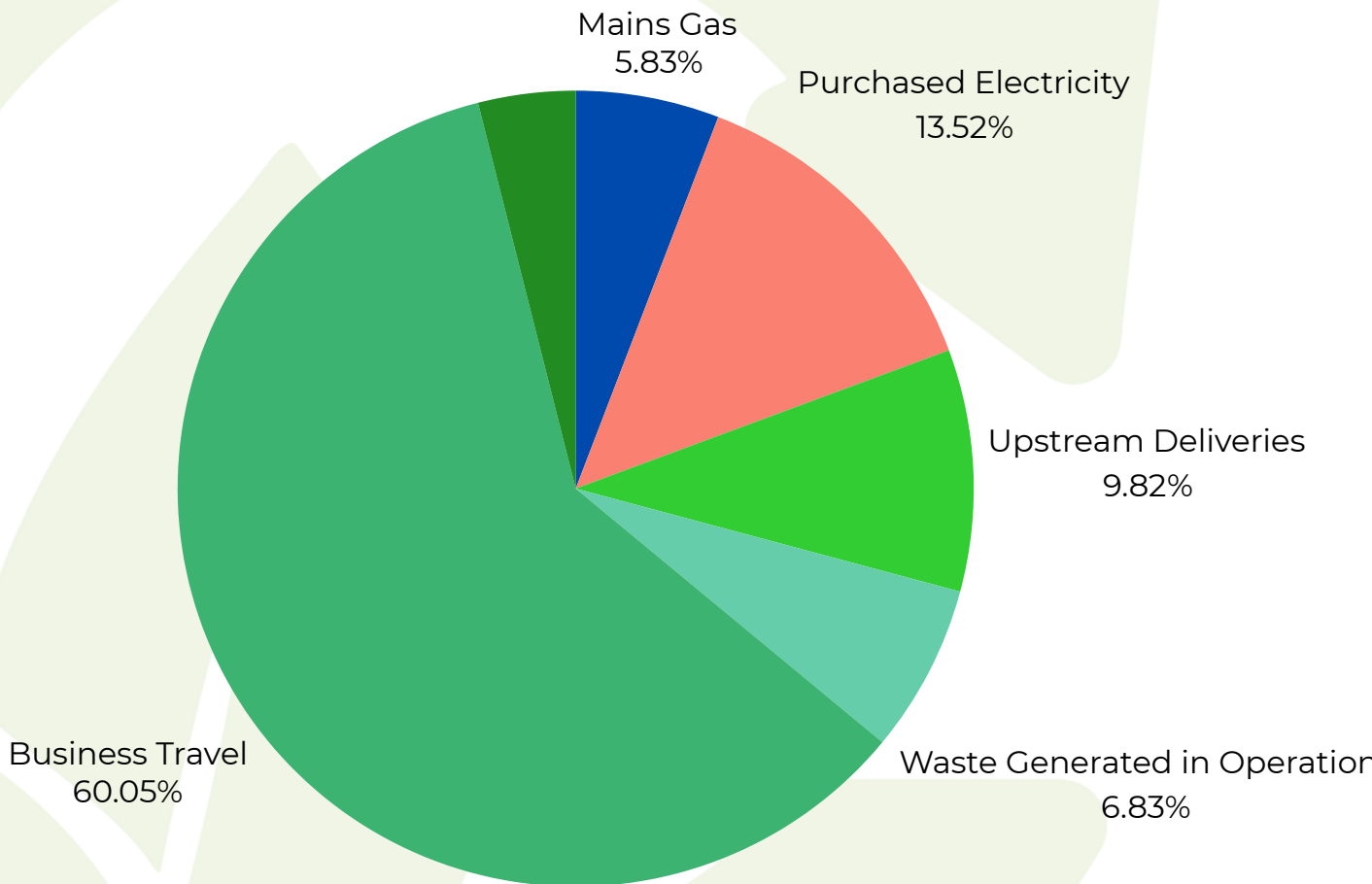
Downstream transportation and distribution contributing **16.73 kg CO<sub>2</sub>e**. This category accounts for the delivery of finished products to customers across the UK, primarily using light commercial vehicles (LCVs), such as vans.

With a UK-based customer base, delivery distances remain relatively short, helping to reduce overall transport emissions; demonstrating the benefits of localised distribution compared to the longer distances seen in upstream logistics.

As sales volume increases, downstream transport emissions will rise, reinforcing the importance of engaging delivery partners early to explore low-carbon logistics solutions.

### 4.5 Total Carbon Emissions Distribution

This chart illustrates Eco Ninjas Ltd’s emissions distribution, with Scope 1 in blue, Scope 2 in red, and Scope 3 in shades of green, highlighting the key contributors to the company's carbon footprint.



### 4.6 Scope 3 Exclusions

Categories not required as part of the minimum NHS Net Zero Supplier Requirements have not been included in this carbon footprint assessment.

## 4.7 Emissions Data for Six GHGs

This Carbon Impact Report aligns with the GHG Protocol by detailing the Global Warming Potential (GWP) for each of the seven major greenhouse gases covered by the Kyoto Protocol. These include **Carbon Dioxide (CO<sub>2</sub>)**, **Methane (CH<sub>4</sub>)**, **Nitrous Oxide (N<sub>2</sub>O)**, **Hydrofluorocarbons (HFCs)**, **Perfluorocarbons (PFCs)**, **Sulphur Hexafluoride (SF<sub>6</sub>)**, and **Nitrogen Trifluoride (NF<sub>3</sub>)**.

By presenting the GWP of each gas, we establish a clear method for converting diverse greenhouse gas emissions into a unified measure: CO<sub>2</sub>e. This approach ensures that all greenhouse gas emissions are accounted for consistently, providing a comprehensive and comparable representation in this report.

Greenhouse Gas (GHG)	Chemical Formula	GWP (CO <sub>2</sub> e)
Carbon Dioxide	CO <sub>2</sub>	1
Methane	CH <sub>4</sub>	25
Nitrous Oxide	N <sub>2</sub> O	298
Hydrofluorocarbons	HFCs	Varies
Perfluorinated Compounds	PFCs	Varies
Sulphur Hexafluoride	SF <sub>6</sub>	22,800
Nitrogen Trifluoride	NF <sub>3</sub>	17,200

## 4.8 Intensity Ratio for Comparative Analysis

In line with the Streamlined Energy and Carbon Reporting (SECR) framework, this report includes an annual intensity ratio to evaluate carbon efficiency relative to production output. This metric provides a standardised measure of greenhouse gas emissions per unit of product produced, enabling consistent year-on-year comparisons and supporting transparent reporting.

The intensity ratio reflects Eco Ninja's commitment to monitoring and managing its carbon footprint, ensuring that improvements in efficiency and sustainability are measurable and trackable over time.

### Intensity Ratio for Reporting Year:

- **Reporting Period:** 01/12/2023 - 30/11/2024
- **Emissions:** 423.66 kg CO<sub>2</sub>e
- **Total Product Produced:** 60.87 kg
  
- **Intensity Ratio:** 6.96 kg CO<sub>2</sub>e per kg of product produced



## 5. Carbon Reduction Plan

This Carbon Reduction Plan (CRP) has been developed to align with the **NHS Net Zero Supplier Roadmap**, supporting the NHS's goal of achieving net zero emissions by 2045.

The roadmap sets clear expectations for suppliers to measure and reduce carbon emissions across **Scope 1, Scope 2, and required subset of Scope 3 categories**.

Eco Ninjas Ltd is committed to meeting these requirements by implementing practical and measurable strategies to reduce emissions from key sources identified in this assessment. This CRP outlines targeted recommendations to help lower **Eco Ninjas Ltd's carbon footprint**, ensuring compliance with NHS procurement guidelines and contributing to the sustainability goals of the healthcare sector.

Additionally, a **PPN 06/21 Carbon Reduction Plan** has been developed, leveraging the data and insights from this assessment. This ensures a clear, transparent, and structured approach to achieving net zero emissions while meeting specific NHS procurement framework requirements.



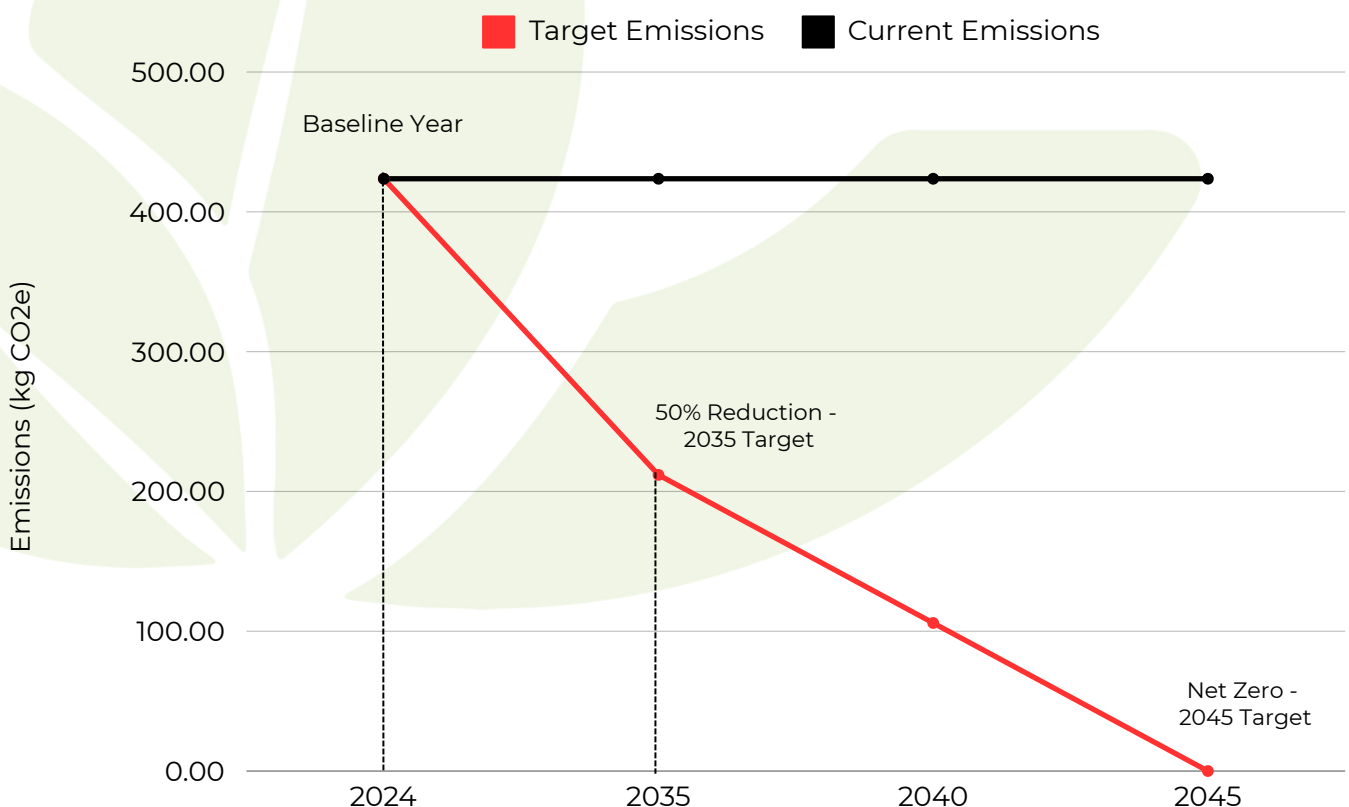
## Emissions reduction targets

Eco Ninjas Ltd is committed to achieving net zero emissions by 2045, in alignment with the NHS Net Zero Supplier Roadmap. Given the company’s growth trajectory, a gradual reduction approach has been set, with a focus on practical and achievable milestones:

- **Baseline Year (2023–2024):** Total carbon emissions calculated at 423.66 kg CO<sub>2</sub>e, establishing the reference point for all future reductions.
- **By 2035:** Achieve a 50% reduction, lowering emissions to 211.83 kg CO<sub>2</sub>e through improvements in supply chain sustainability, energy efficiency, and transport emissions.
- **By 2045:** Reach net zero emissions, reducing total emissions to 0 kg CO<sub>2</sub>e in line with NHS procurement requirements and global carbon reduction targets.

These targets account for business growth and scaling operations, ensuring that decarbonisation efforts remain realistic while maintaining long-term sustainability commitments. Progress will be reviewed annually to assess reductions, ensure feasibility, and adjust strategies as the business scales.

**Carbon Reduction Plan Graph**



## 5.1 Carbon Reduction Recommendations

### Scope 1

#### Mains Gas

Eco Ninjas Ltd operates remotely, with Scope 1 emissions the lowest contributor to overall emissions, stemming solely from home gas usage for heating. While large-scale infrastructure changes are limited, practical steps can further reduce emissions:

- **Encourage Transition to Air Source Heat Pumps (ASHPs)**
  - Where feasible, employees can replace gas boilers with ASHPs to cut emissions.
  - Ensure ASHPs are powered by 100% renewable electricity for maximum impact.
- **Switch to Renewable Gas Tariffs**
  - If an ASHP is not viable, employees can opt for green gas tariffs, incorporating biogas or carbon offsets.
- **Enhance Home Heating Efficiency**
  - Use smart thermostats to optimise heating schedules.
  - Improve insulation and draught-proofing in home office spaces.
  - Reduce heating in non-essential areas during work hours.

## **Scope 2**

### **Electricity Use**

Eco Ninjas Ltd's Scope 2 emissions total 57.27 kg CO<sub>2</sub>e, resulting from electricity consumption in home offices. Although emissions are relatively low, further reductions can be achieved through:

- **Switching to a 100% Renewable Electricity Tariff:**
  - Employees should transition to certified renewable energy providers to ensure electricity use is sourced from wind, solar, or hydro power.
  - This is the most effective way to eliminate Scope 2 emissions entirely.
- **Improving Home Energy Efficiency:**
  - Use LED lighting and energy-efficient devices.
  - Unplug or switch off electronics when not in use to prevent standby energy consumption.
  - Optimise computer and heating settings to reduce unnecessary power usage.
- **Encouraging Solar Energy Use (Long-Term Consideration):**
  - If feasible, employees could consider installing rooftop solar panels, further reducing reliance on grid electricity.
  - Government incentives, such as the Smart Export Guarantee (SEG), may support this transition.

## **Scope 3**

### **Category 4: Upstream Transportation and Distribution**

Eco Ninjas Ltd's upstream transportation emissions total 41.61 kg CO<sub>2</sub>e, resulting from raw material shipments from Pakistan to Northumbria Manufacturing Hub. As the business grows, reducing transport-related emissions will be essential.

#### **Key Reduction Strategies:**

- **Optimise Shipping Efficiency**
  - Work with Northumbria Manufacturing Hub to consolidate shipments and reduce transport frequency.
  - Explore biofuels and lower-emission freight options for road transport.
- **Encourage Supplier Carbon Tracking**
  - Request greater transparency on supplier transport emissions.
  - Prioritise suppliers adopting science-based carbon reduction targets.
- **Assess Alternative Sourcing**
  - Investigate regional suppliers to reduce transport distances in the long term.

### **Category 5: Waste Generated in Operations**

As a remote business, Eco Ninjas Ltd produces negligible domestic waste, with the majority of emissions coming mainly from material offcuts and packaging waste at Northumbria Manufacturing Hub.

#### **Key Reduction Strategy:**

- **Reduce Production Waste Through Supplier Engagement**
  - Work with Northumbria Manufacturing Hub to optimise material use, minimise offcuts, and increase recycling.
  - Explore efficient cutting techniques, sustainable packaging alternatives, and repurposing excess materials.
  - Establish waste tracking and reporting to drive reductions over time.

## Category 6: Business Travel

Business travel emissions were the greatest out of all categories, totaling 254.42 kg CO<sub>2</sub>e, primarily from electric vehicle use, with a small contribution from hotel stays. While EVs significantly reduce emissions compared to petrol or diesel cars, further reductions can be achieved by prioritising low-carbon travel options.

### Key Reduction Strategy:

- **Implement a Carbon Hierarchy for Business Travel**
  - First option: Use virtual meetings whenever possible to eliminate travel emissions.
  - Second option: Choose trains or buses for long-distance travel, as they have a lower carbon footprint than cars.
  - Last resort: Use an electric vehicle only when public transport is impractical.

## Category 7: Employee Commuting & Homeworking

As Eco Ninjas Ltd operates **entirely remotely**, there are no commuting-related emissions, and no further reductions are required.

## Category 9: Downstream Transportation and Distribution

Downstream transportation emissions are driven by deliveries of finished products to customers. While this is relatively low compared to other sectors due to the lightweight nature of the product, emissions are projected to increase as the business grows, making early collaboration with delivery partners essential to ensure sustainable distribution.

### Key Reduction Strategy:

- **Engage with Logistics Providers to Reduce Emissions**
  - Explore low-carbon delivery options, such as electric or hybrid vehicles.
  - Optimise shipment consolidation to reduce the number of trips.
  - Encourage carbon tracking and reporting from delivery partners to monitor progress.

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# READY TO MAKE A DIFFERENCE?

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