

CARBON REDUCTION PLAN

BETTY BROWN WIGS LIMITED

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1. SCOPE OF THE SURVEY AND BACKGROUND TO THE BUSINESS

1.1. Introduction

Betty Brown Wigs specializes in providing high-quality wigs and hairpieces for women experiencing hair loss due to medical conditions or other reasons. With over 25 years of industry experience, they offer a wide range of wigs in various colours, fabrics, and designs to suit all face shapes.

The business operates from Tuesday to Saturday from a one floor shop, but with some work delivered outside the premises and mainly operated by 2 staff members. The shop is gas heated with radiators but the business is not paying for it as its part of the building they occupy and hence its omitted from considerations of this report.

1.2. EXISTING NET ZERO GOALS

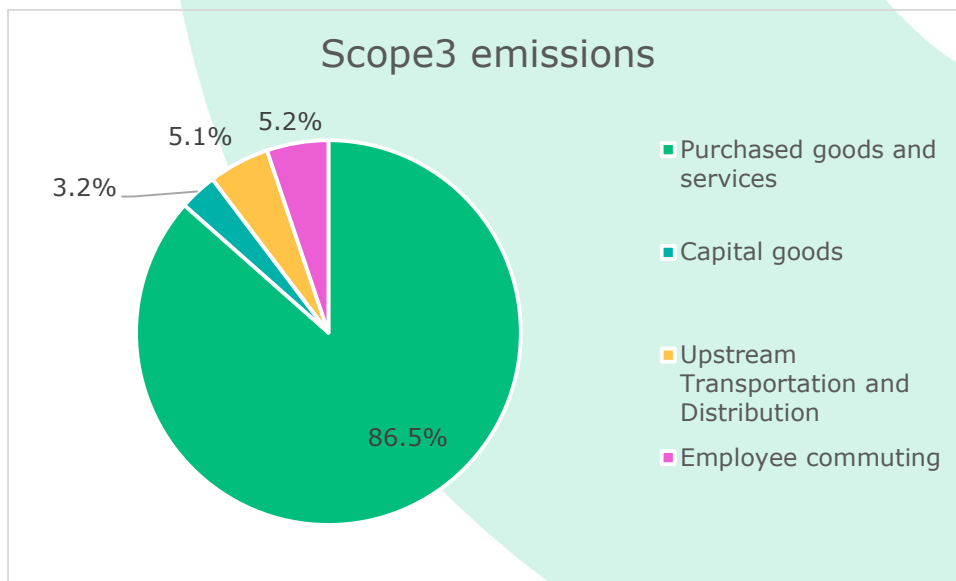
Organization doesn't have an environmental policy in place, but with the aid of this report, it should be able to formulize one.

2. ENERGY CONSUMPTION & CARBON FOOTPRINT

The org's total electricity consumption for the year 2024 was **298kWh**. Organization's total emissions are **47.1tCO2e** and its broken down as follows:

- 2.1. **Scope 1 emissions: 0 tCO2e**
(Direct emissions from fuel burned onsite).
- 2.2. **Scope 2 emissions: 0.061 tCO2e**
(Indirect emissions from purchased electricity used onsite).
- 2.3. **Scope 3 emissions: 49.3 tCO2e**
(Other indirect emissions, such as transmission and distribution losses).

Further breakdown of scope3 emissions is shown in the following graph:



Purchased goods and services has the highest impact on org's emissions with **42tCO2e** contribution. Goods deliveries are assumed once a month from three different regions.

3. SUMMARY OF CARBON REDUCTION OPPORTUNITIES

Following a site survey conducted by Green Economy, several potential savings opportunities have been identified, as detailed in **Table 2**.

TABLE 1 SUMMARY OF CARBON REDUCTION OPPORTUNITIES

Opportunity	Annual Savings (£)	Costs (£)	Payback (years)	Carbon savings (tCO2e)
Replace two fluorescent lightings	43	50	1.2	0.03
Enrol in Green Tariff	-	-	-	0.061
Mitigate Scope3 emissions	-	-	-	4.41
Total	-	-	-	4.5

Those recommendation although yielding only **9.3%** savings from the total carbon emissions, however it shows the methodology that the organization must follow to reduce its carbon emissions.

4. SUPPORTING INFORMATION & CALCULATIONS

4.1. Upgrade to LED lights:

The site visit revealed that there are approximately **2 fluorescent lights** T8 tube types (54W). Replacing these with energy-efficient **LED lights** would not only improve lighting quality but also greatly reduce energy consumption and associated costs. The transition to LED lighting is expected to yield the following savings:

Energy Savings KWh/year	Annual Savings £GBP	Emissions factor 2024 kgCO2/KWh	Emissions Savings kgCO2 eq./year	Payback Years
125	43	0.20705	30	1.2

4.2. Switch to Green Tariff

Renewable energy tariffs are special utility rates that allow consumers to purchase electricity generated from renewable sources like wind, solar, and hydro. These tariffs are often part of programs offered by utilities to promote the use of clean energy. When opting for a renewable energy tariff, organization essentially purchasing electricity generated from renewable sources, which have low or zero emissions. This can reduce your overall carbon footprint.

4.3. Strategies for reduction scope3 emissions

A. Procurement:

- **Sustainable Suppliers:** Source wigs and products from suppliers with strong environmental policies.

Organization should make all efforts to introduce and use sustainable wigs from sustainable manufacturers. Current alternatives options to consider would be:

1. Biodegradable Synthetic Fibers

- **PLA (Polylactic Acid):** Made from renewable resources like corn starch or sugarcane, PLA fibers are biodegradable and can be composted.

- **Bio-based Nylon:** Derived from castor oil, this type of nylon is more sustainable than traditional petroleum-based nylon.

2. Recycled Synthetic Fibers

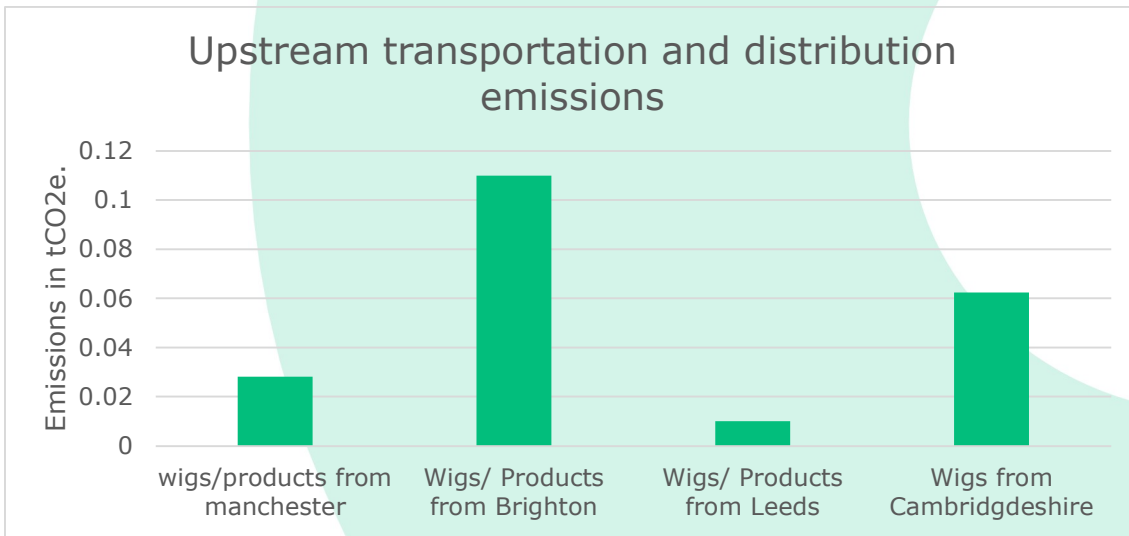
- **Recycled PET (Polyethylene Terephthalate):** PET is commonly used in plastic bottles. Recycled PET fibers can be used to create wigs, reducing plastic waste.
- **Recycled Polyester:** Similar to recycled PET, recycled polyester is made from post-consumer plastic waste and can be used in wig production.

30% Savings is achievable from moving to more sustainable wigs. Organization should gradually introduce the sustainable options and educate its customers about its ethical values until completely shifting the full stock in the upcoming years. Based on current expenditure on wigs, shifting 10% of it into buying sustainable wigs would yield **4tCO2e** savings.

B. Transportation:

- **Optimized Logistics:** Plan efficient delivery routes to minimize travel distances.
- **Local Sourcing:** Prioritize local suppliers to reduce transportation emissions.
- **Low-Emission Vehicles:** Use electric or hybrid vehicles for transportation.

Current wigs supply is coming from different suppliers in different regions. The organization should make all efforts possible to source wig supply from local suppliers.



As shown in the graph above, some of the products are sourced from distant regions. Organization should make all efforts to eliminate long distance supply or employ more sustainable supply method. Eliminating supply from Brighton would save **52%** off this category's emission, which is **0.11tCO2e**.

- **Employees Commuting:**

Currently, employees commuting accounts for **5.4%** of scope3 emissions, totalling **2.6tCO2e**. All current staff members are travelling to work using a passenger vehicle. One staff member is travelling 4 days a week, efforts should be made to encourage using public transport or introduce a cycle to work scheme. A scenario where one staff member travels once a week using public transport instead of passenger vehicle would reduce emissions by **43%** for the same trip. Hence, if staff member **BL** travels 1 day a week using public transport instead of passenger vehicle, that would result in **12% (0.30tCO2e)** annual reduction in this category's emissions.

4. Engagement and Training

- **Staff Training:** Educate staff on sustainable practices and the importance of reducing emissions.
- **Supplier Engagement:** Work with suppliers to improve their environmental performance.

5. Monitoring and Reporting

- **Regular Audits:** Conduct regular audits to track progress against targets.
- **Transparent Reporting:** Report emissions and progress publicly to maintain transparency and accountability.

6. Continuous Improvement

- **Feedback Loop:** Establish a feedback loop to continuously improve practices based on audit results and new technologies.
- **Innovation:** Stay updated with the latest sustainable technologies and practices.

ACTIONS AND NEXT STEPS

If you find the prospect of starting the journey to net zero daunting, you're not alone. When surveyed, business leaders say they sometimes find the terminology confusing and the landscape difficult to navigate, while many are simply too focused on the day-to-day running of their operation to explore how they could cut emissions. This checklist offers a starting point for you to help prioritise and bring in support where needed.

1.	UNDERSTAND WHERE YOU ARE NOW This report provided the emissions baseline for you.	Read More
2.	REDUCE ENERGY USE This 'How to save energy' guide offers several low and no cost solutions to reducing energy use and cutting costs throughout your business	Read More
3.	WORKFORCE ENGAGEMENT Embedding change requires you to gain buy in from your entire workforce.	Read More
4.	INVEST IN GREEN TECHNOLOGIES Search for local, trusted suppliers of green technologies to help you further reduce energy demand or implement self-generation renewable solutions.	Read More
5.	BECOME A GREEN SUPPLIER Understand what matters to your customers to increase your competitiveness as the UK transitions to net zero. Read this guide to becoming a green supplier.	Read More
6.	ENGAGE WITH YOUR SUPPLY CHAIN To have a full command of your organisation's carbon footprint, you must explore the entire value chain to understand your 'Scope 3' or indirect emissions. This guide explains the process to manage this for your firm.	Read More
7.	SET SCIENCE-BASED TARGETS Use this guide to set SMART objectives that are science based	Read More
8.	LASTLY, LOOK AT CARBON OFFSETTING SOLUTIONS Read this guide to carbon offsetting, when it can be effective and why it should be the final item on your carbon reduction action plan	Read More
9.	STAY ON TOP OF ENVIRONMENTAL POLICY AND LEGISLATION Sign up to Green Intelligence – a free, monthly round up of the latest environmental business news, views and insights	Read More

APPENDICES

- **Net zero toolkit**
Access resources and step-by-step guides to help you make change to your business.
[Explore resources](#)
- **Green Intelligence**
A monthly round up of environmental business news, views and insights straight to your inbox.
[Sign up](#)
- **Green Economy events and training**
Access a series of events, training and workshops to support your decarbonisation journey.
[View events calendar](#)
- **Green Economy Solar Energy resources**
- <https://www.greeneconomy.co.uk/insights/our-energy-future-solar-power/>
- **Green Economy Marketplace**
[Green Economy | Marketplace: Find green products & services](#)

DISCLAIMER

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YOUR COMMITMENT

While Green Economy provides support and advice to client organisations, the client organisation itself will be ultimately responsible for ensuring these actions are completed.

Since Green Economy is required to demonstrate its impact, it expects that client organisations provide in return any evidence that demonstrates positive impacts as a result of the support provided, including but not limited to:

1. Carbon and cost savings to which the support has contributed
2. Carbon reduction targets & plans set
3. Investment in green products & services

This evidence will only be used for internal purposes, unless the organisation confirms otherwise.

