Syntech Biofuel

Carbon Reduction Plan

Executive Summary

This Carbon Reduction Plan outlines the strategies and actions that Syntech Biofuel will undertake to achieve net-zero carbon emissions by 2040. Although we believe, due to the circular nature of our production process and business, we already achieve significantly lower emissions outputs than traditional fuel producers, we recognise that there are further improvements that can be made with novel solutions and innovation. The plan is in alignment with PPN06/21 and uses the baseline year of January to December 2023 which we have engaged Envirosense Ltd to carry out for benchmarking and future reporting. As a company certified with ISO 9001, ISO 14001, and ISO 45001, we are committed to continuously improving our environmental and occupational health and safety performance.

Objectives.

- Reduce carbon emissions across all scopes to achieve a 50% reduction by 2030.
- Achieve net-zero carbon emissions by 2040.
- Continuously monitor and report on carbon emissions to track progress against targets.

Scope and Boundaries

- Scope 1: Direct emissions from owned or controlled sources.
- Scope 2: Indirect emissions from the generation of purchased electricity, heat, or cooling.
- Scope 3: Indirect emissions from the value chain, focused on team transport.

1. Introduction

Syntech Biofuel is committed to achieving carbon neutrality and aligning with the PAS 2060 standard. This Carbon Reduction Plan outlines our strategy, targets, and actions to reduce our carbon emissions across all scopes, ensuring we meet our sustainability goals. The plan integrates the Carbon Reduction Plan for 2023-2040, further detailing our pathway to net-zero.

2. Organisational Commitment

Syntech Biofuel is dedicated to reducing its carbon footprint through innovative technologies and sustainable practices. Our mission is to lead the biofuel industry towards a greener future by integrating sustainability into every aspect of our operations. As an ISO 9001, ISO 14001, and ISO 45001 certified organisation, we are committed to continuously improving our environmental and occupational health and safety performance.

3. Baseline Emissions Inventory

- **Baseline Year:** January to December 2023
- **Scope 1 Emissions (Direct emissions): 240,382 kgCo2e** (Including emissions from vehicle fleet and on-site fuel combustion).
    - Process emissions (inputs include methanol and potassium hydroxide for the biofuel production process)
    - Limitation: There is no data for the fuel consumption of transport onsite or fugitive emissions onsite e.g., leaks. Recommend to get an LDAR assessment.
- **Scope 2 Emissions (Indirect emissions from electricity, heat, and cooling): 8,242** kgCo2e (Emissions from purchased electricity and heating).
- **Scope 3 Emissions (Other indirect emissions): 6,654 kgCo2e** emissions mainly focus on staff transport and supplies delivery.
    - Upstream supplier transport emissions (emissions from the transport of UCO to the site)
    - Employee commuting emissions
    - Limitations: Does not account for downstream transport emissions or end-use combustion of biofuel.

Total Emissions will be subject to continuous assessment as Syntech refines its GHG calculation methodologies.

4. Targets and Commitments

Syntech Biofuel aims to achieve the following targets:

- 50% reduction across all scopes by 2030 relative to the 2023 baseline.
- **Net-Zero Goal:** Achieve net-Zero carbon footprint across Scope 1, 2, and 3 by 2040.
- **Continuous Monitoring:** Conduct annual carbon footprint assessments to track progress and report in accordance with PPN06/21 and ISO 14001 standards.

5. Emission Reduction Activities

Scope 1 (Direct Emissions):

- **Energy Efficiency:** Conducting energy audits to identify improvement opportunities. Measures include upgrading to more efficient equipment and optimising production processes. Envirosense Ltd has been engaged to conduct these energy audits and identify areas for further energy efficiency improvements.
- **Transition to Renewable Energy:** Becoming approximately 90% self-sufficient in energy by using our own biofuel to energise production units and heat the offices and laboratories. Additionally, we are exploring other renewable energy options, such as solar or wind, to meet operational needs.
- **Vehicle Fleet:** All site vehicles, forklifts, and telehandlers use B100 Syntech ASB Biofuel to achieve up to 50% emissions reductions. We are also encouraging staff to transition to electric or hybrid vehicles for company-owned transportation.

Scope 2 (Indirect Emissions from Purchased Energy):

- **Green Energy Procurement:** Purchasing renewable energy certificates (RECs) or entering into Power Purchase Agreements (PPAs) to offset emissions from purchased electricity. This is aimed at ensuring our indirect emissions are balanced by investment in renewable energy.
- **Energy Efficiency Policies:** Reducing consumption of all energy imported from the National Grid by implementing energy-saving policies such as turning off lights and equipment when not in use, and upgrading heating, ventilation, and cooling systems for greater efficiency.

Scope 3 (Other Indirect Emissions):

- **Supply Chain Management:** Working with suppliers to optimise transportation routes and reduce emissions within the supply chain. We also supply Syntech ASB Biofuel to our waste oil collectors and logistics companies delivering to our end users, thereby improving our Scope 3 emission provenance trail.
- **Waste Management:** Implementing a waste reduction and recycling programme to minimise landfill waste. Additionally, we are exploring opportunities for increased waste-to-energy conversion to further reduce emissions.
- **Employee Engagement:** Educating and engaging employees on carbon reduction strategies and encouraging them to contribute to the company's sustainability goals.

6. Renewable Energy Use

Syntech Biofuel is committed to using renewable energy sources for all our operations. We are currently self-sufficient in energy provided from utilising our own biofuel to energise production units and heat facilities, and are evaluating additional renewable sources to ensure sustainable operations.

7. Quantification of Carbon Footprint

Our carbon footprint is quantified through a third-party GHG assessment, ensuring accuracy and transparency. The assessment covers all relevant emission sources and is updated annually to track our progress. Emissions reporting is conducted in alignment with PPN06/21 and the GHG Reporting Protocol corporate standard.

8. Emission Sources

The primary sources of emissions within Syntech Biofuel include:

- **Scope 1:** Vehicle fleet emissions, on-site fuel combustion**.**
- **Scope 2:** Purchased electricity and heating.
- **Scope 3:** Supply chain emissions, employee commuting, business travel, and supplier transport.

9. Verification and Compliance

Syntech Biofuel ensures compliance with the PAS 2060 standard through third-party verification of our GHG emissions data. Verification processes

confirm the credibility of our carbon neutrality claim and our commitment to transparency.

10. Monitoring and Reporting

We have implemented a robust data collection system to monitor carbon emissions across all scopes. Reporting is conducted annually in line with PPN06/21 and ISO 14001 requirements, and reviewed to ensure alignment with reduction targets. The Carbon Reduction Plan will undergo an annual review to evaluate progress and identify areas for improvement.

11. Conclusion

Syntech Biofuel's Carbon Reduction Plan demonstrates our commitment to sustainability and carbon neutrality. By setting ambitious targets, implementing comprehensive reduction activities, and ensuring robust verification processes, we are dedicated to leading the biofuel industry towards a sustainable future. Our ultimate goal is to achieve net-zero by 2040, continuously improving our carbon reduction strategies and setting benchmarks for sustainable biofuel production in the UK.

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 will be reported and recorded in accordance with the published reporting standards for Carbon Reduction Plans and the GHG Reporting Protocol corporate standard, and uses the appropriate Government emission conversion factors for greenhouse gas company reporting.

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.

We are currently in an elaborate and accurate calculations of our emissions and as this is a time consuming process for us for the first time, hence we have mentioned the following emissions for the purpose of this submission. These figures will vary once we have received a comprehensive GHG calculated emissions and subsequently updated on our website. All stakeholders will be informed of the same.

Scope 1	Emissions	Units
1 Emissions from your vehicle fleet are calculated based on fuel consumption.	2.7	tCO2e
2 Methanol Inputs	237.8	tCO2e
3. Potassium Input	2.6	tCO2e
Scope 2		
Electricity processing emissions - consumption from grid network	8.2	tCO2eq
Scope 3		
1 Transportation of raw materials to the production site.	1.8	tCO2e
2 Employee Business Travel	4.8	tCO2e

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

Approved by:

Signed on behalf of Syntech Biofuel:

Syntech Biofuel
Unit 9 Kingsnorth Industrial Estate
Gamma Road
Grain ME3 9ND

Mike O'lone, Director of Environment and Sustainability

Date: December 3rd 2024