

Carbon Reduction Plan

Supplier name: Birch Airfield Composting Services Ltd

Publication date: 01/04/2023

# **Commitment to achieving Net Zero**

# Birch Airfield Composting Services 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 012strategies to reduce emissions. Baseline emissions are the reference point against which emissions reduction can be measured.

The baseline emissions for this report are from the year 2022. The date range covered is 01/01/2022 to 31/12/2022. This was the first year the organisation has reported on emissions.

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| --- | --- |
| **Baseline Year: 2022** | |
| **Additional Details relating to the Baseline Emissions calculations.** | |
| 2022 is the baseline year as Birch Airfield Composting Services Ltd had not previously been required to request and collate this information. | |
| **Baseline year emissions:** | |
| **EMISSIONS** | **TOTAL (tCO2e)** |
| **Scope 1** | 399.4 |
| **Scope 2** | 4.15 |
| **Scope 3**  **(Included Sources)** | 93.404 |
| **Total Emissions** | 496.954 |

**Current Emissions Reporting**

|  |  |
| --- | --- |
| **Reporting Year: 2022** | |
| **EMISSIONS** | **TOTAL (tCO2e)** |
| **Scope 1** | 399.4 |
| **Scope 2** | 4.15 |
| **Scope 3**  **(Included Sources)** | 93.404 |
| **Total Emissions** | 496.954 |

A calculation of the Scope 1 and scope 2 emissions has been generated by recording the amount of fuel and energy used by the company at the Birch Airfield site in 2022 and calculating the total tonnes CO2e following the UK Government GHG Conversion Factors for Company Reporting and the Farm Carbon Calculator <https://calculator.farmcarbontoolkit.org.uk/>

Scope 1 emissions

Diesel

All the machines run at Birch Airfield Compost site use white diesel. In 2022 126,800 litres was purchased and used. This accounts for the highest amount of tonnes (t) CO2e used by BACS. The Farm Carbon Tool kit calculates 395.90 t CO2e.

Oil

1000 litres of lubricant oil was used at the site in 2022. This produced 3.5 t CO2e.

Scope 2 emissions

Electricity

In 2022 BACS Ltd used 31631 kwh of electricity. 45% of the electricity used was from the national grid and the remaining 55% was generated by the solar site located at Birch Airfield. The Farm Carbon Tool kit calculates the overall electricity used as 4.15 t CO2e.

Scope 3 emissions

Staff travel

The amount of fuel used by staff to commute to Birch Airfield compost site was 1198 litres of petrol which produced 3.36t CO2e and 2127. 5 litres of diesel which produced 6.64t CO2e was also used.

Water

In 2022 BACS used 835m3 of mains water. This used 124.415 kg CO2e per unit.

Waste removed from site

In 2022 117.54 tonnes of oversize waste from the compost screening process, which is a mix of woody material and plastic, was collected by a local waste removal company and sent to landfill. In 2022 71.56t tonnes of contamination removed from waste delivered to the site was collected by Essex County Council and taken to landfill. The Farm Carbon Tool kit calculates 189.1 tonnes of waste to landfill as being 86.64 t CO2e.

Carbon off setting

In 2022 BACS owned 446 m of hedgerows, with a 1 metre width. The Farm Carbon Toolkit calculates this provides minus 1 t CO2e for sequestration from hedgerows.

BACS owns 1620 m2 of uncultivated land, which can provide a habitat for nature. The Farm Carbon Toolkit calculates this provides minus 0.03 t co2e for sequestration from uncultivated field margins.

# **Emissions reduction targets**

# In order to continue our progress to achieving Net Zero, we will develop carbon reduction targets once the intervention options have been explored further.

# **Carbon Reduction Projects**

The key carbon hotspots of company operations and potential interventions have been identified.

Diesel

The primary carbon hotspot for company operations is the use of white diesel. In 2022 the 126,800 litres purchased accounted for the highest amount of CO2e used by BACS at 395.90 t.

Interventions:

* Identify any more environmentally friendly fuel options which could be used and trial these.
* Identify which machines have been made in electric or hydrogen powered versions and trial these.
* Train staff to switch off engines when not required.

Electricity

Whilst 55% of the electricity used by BACS is generated by the adjoining solar site, the remaining 45% could potentially be if battery storage was utilised.

Interventions:

* Research the possibility of battery storage at Birch Airfield and assess cost benefits.

Staff travel

Staff travel to work in petrol and diesel cars accounts for 10 t of CO2e.

Intervention:

* Encourage staff to use electric cars.

Waste removed from site

In 2022 the amount of waste removed from site to landfill accounted for 86.64 t CO2e. It is likely much of the contamination could be recycled.

Intervention:

* Speak with ECC about business recycling options.

In addition to the planned interventions, outlined above, to reduce carbon used by the business on an annual basis, BACS have strategic sustainability objectives which aim to positively impact on the environment and reduce carbon levels.

In the land surrounding Birch Airfield compost site BACS own 446m of tree plantations. These provide the dual purposes of screening the activities at the compost site, so neighbours do not see machines in operation, and carbon offsetting. BACS will assess the possibility of planting trees each year to impact on carbon offsetting.

BACS use local suppliers where possible, to reduce the haulage, and therefore carbon used to deliver materials to site.

Compost spread to land has the ability to capture carbon within the soil. Approximately 6,000 tonnes of compost was spread to farm land owned by the Strathern family who own and run BACS. This captures carbon each year by increasing the organic matter levels in the soil. BACS plan to continue using compost on the family farm.

In 2022 BACS produced in the region of 25,000 tonnes of compost. The compost is used by farmers, gardeners and in forestry. The use of compost produced by Birch Airfield Composting Services Ltd in the local area ensures further carbon is captured.

# **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 standard[[1]](#footnote-2) and uses the appropriate [Government emission conversion factors for greenhouse gas company reporting](https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting)[[2]](#footnote-3).

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[[3]](#footnote-4). 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:

Director Angela Morton

Date: 01/04/2023

1. <https://ghgprotocol.org/corporate-standard> [↑](#footnote-ref-2)
2. <https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting> [↑](#footnote-ref-3)
3. <https://ghgprotocol.org/standards/scope-3-standard> [↑](#footnote-ref-4)