# CARBON REDUCTION PLAN 2023

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| Supplier name: | Bucher Municipal Ltd |
| Publication date: | 31/03/2023 |

## Commitment to Achieving Net Zero

**Bucher Municipal Ltd** is committed to achieving Net Zero emissions by 2050.
We have an Energy Management System certified to ISO 50001:2018 and is used to monitor and improve our energy consumption which will reduce carbon emissions as a by-product of energy use. Our Environmental Management System certified to ISO 14001:2015 is used to monitor and improve our carbon emissions in other areas of the business.

## 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.

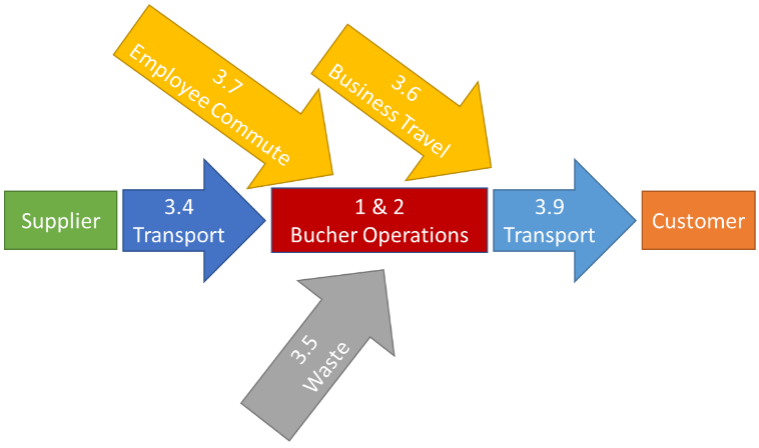
Although we have a baseline set as required by our Energy Management System, the baseline for Net Zero will be 2021 in line with the release of PPN06/21 and our parent group, Bucher Industries, ESG strategy.

The descriptions and methods for data capture for each category have been established along with actions required to achieve full data capture.

The figures were compiled using the UK government GHG emissions factors for the applicable year.

The following emissions for scope 3 have been calculated:

- **Upstream transportation and distribution** (supply chain delivery) – to be calculated, currently estimated (S3.4 emissions)
- **Waste generated in operations** – actual data based on weights and emissions factors (S3.5 emissions)
- **Business travel** – business travel was included in Scope2 for SECR calculations, includes air travel and private expensed road travel. Train tickets cannot be appraised so have been included in fuel estimates (S3.6 emissions)
- **Employee commuting** – estimated based on postcodes of workers and national averages for modes of transport (S3.7 emissions)
- **Downstream transportation and distribution** (Aftersales delivery) – actual data based on origin and destination, emissions from mode of transport per tonne moved (S3.9 emissions)



# CARBON REDUCTION PLAN 2023

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## Baseline Emissions Reporting

| | |
|---|---|
| **Baseline Year:** 2021 | |
| **Additional Details relating to the Baseline Emissions calculations.** | |
| The baseline was originally calculated as part of the SECR requirement, and is primarily Scope 1 and 2, with business travel being previously included in scope 2 for SECR. The method of collection of business travel through expenses claims does not distinguish travel type or distance. Upstream transportation S3.4 has been estimated based on S3.9 until data capture is refined in order to produce worthwhile data.<br><br>Our baseline period is January to December, in line with our financial reporting and Energy Management System. | |
| **Baseline year emissions:** | |
| **EMISSIONS** | **TOTAL ($tCO_2e$)** |
| **Scope 1** | 2089 |
| **Scope 2** | 876 |
| **Scope 3 (Included Sources)** | 565 |
| **Total Emissions** | 3530 tonnes |

## Current Emissions Reporting

| | |
|---|---|
| **Reporting Year:** 2022 | |
| **EMISSIONS** | **TOTAL ($tCO_2e$)** |
| **Scope 1** | 1978 |
| **Scope 2** | 824 |
| **Scope 3 (Included Sources)** | 603 |
| **Total Emissions** | 3405 tonnes |

# CARBON REDUCTION PLAN 2023

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## Scope 1 Direct Combustion

| Cat | Description | | Calculation Method |
|---|---|---|---|
| 1 | Natural Gas,<br>Fuels for testing of product,<br>Fuels for transportation | Gas used for heating of buildings, curing of painted product.<br>Transportation fuel (diesel and petrol) for directly owned vehicles (company cars and forklifts), fuel for testing of product (HVO). | Meter readings taken monthly |
| **Summary** | | | |
| As part of the ISO certified Energy Management System (EnMS) we are already collecting and monitoring data related to consumption of fossil fuels. Using the consumption figures and GHG calculations we can calculate our on-site CO2e emissions | | | |
| **Actions** | | | |
| Complete | | | |

## Scope 2 Purchased or Indirect Energy

| Cat | Description | | Calculation Method |
|---|---|---|---|
| 2 | Grid electricity for power and lighting | Purchased electricity for powering of site lighting, production lines, service centres and tools. | Meter readings taken monthly and half-hourly data |
| **Summary** | | | |
| Also included in the EnMS is energy purchased in the form of grid electricity. Depending on supplier this might be from burning of natural gas or from renewables, usually this is published on the invoices but is not guaranteed. | | | |
| **Actions** | | | |
| Complete | | | |

## Scope 3 Upstream Categories

| Cat | Description | Purchased Transportation | Calculation method |
|---|---|---|---|
| 3.4 | Upstream transportation and distribution paid for by Bucher (included in cost of products and separately) | Emissions from the transportation and distribution of products purchased by the reporting company in the reporting year between a company's tier 1 suppliers and its own operations (in vehicles and facilities not owned or controlled by the reporting company); transportation and distribution services purchased by the reporting company in the reporting year, including inbound logistics, outbound logistics (e.g. of sold products); and transportation and distribution between a company's own facilities (in vehicles and facilities not owned or controlled by the reporting company). | Currently estimated based on S3.9 values. Method to be determined according to data gathered |
| **Summary** | | | |
| Supply chain parts delivery – The supplier can either provide a full product, cradle to grave emissions value (supplier specific calculation method), or they can provide the S1&2 values (hybrid calculation method)<br>Whilst we have a lot of piece parts delivered to the production site and between our depots, the size and distance can vary greatly and fuel information is not readily available for calculation.<br><br>Delivered end product are paid for by customer, therefore these are calculated as 3.9 | | | |
| **Actions** | | | |
| To be calculated using an appropriate method in 2022. Estimation has been made to include purchased deliveries (100t) | | | |

| Cat | Description | | Calculation Method |
|---|---|---|---|
| 5 | Waste generated in operations | Emissions from third-party disposal and treatment (in facilities not owned or controlled by the reporting company) of waste generated in the reporting company's operations in the reporting year. | Supplier specific |
| **Summary** | | | |
| Collected by Veolia for the majority of our waste (Dorking), there are also smaller waste companies who collect waste for our service centre network. | | | |
| **Actions** | | | |
| Complete | | | |

| Cat | Description | | Calculation method |
|---|---|---|---|
| 6 | Business travel | Emissions from the transportation of **employees for business-related activities** during the reporting year (in vehicles not owned or operated by the reporting company). | Road - Fuel-based method<br>Air – Distance-based method |
| **Summary** | | | |
| Private mileage, fuel, air travel, rail travel cost were taken from staff expenses claims via the business accounting software.<br><br>Private mileage information is taken from expenses cost claims and calculated from miles paid in expenses. Shell fuel cards for fuel purchased are classed as direct combustion and are therefore in scope 1. The hybrid vehicles used by the company are 90:10 ratio of petrol:electric miles.<br><br>Fuel and train fares are included in with other expenses such as tolls and parking so currently it is not possible to calculate this. The assumption made is that all cars are medium sized<br><br>For air travel – fare information including origins/destinations was provided from the primary travel agent used by the company, and from there distances between origins and destinations were calculated. Seat class was not published so average was taken. | | | |
| **Actions** | | | |
| Complete | | | |

| Cat | Description | | Calculation method |
|---|---|---|---|
| 7 | Employee commuting | Emissions from the transportation of employees between their homes and their worksites during the reporting year (in vehicles not owned or operated by the reporting company). | Average data method |
| **Summary** | | | |
| We have around 450 employees who travel to a fixed place of work using various modes of transport. The average data method is most applicable. Note that mobile technicians are issued a fuel card so that travel is captured in scope 1 as direct combustion, and offsite sales staff are included in scope 3.6 as business travel.<br>National average information was used to draw an approximate picture of the commuting. | | | |
| **Actions** | | | |
| Complete | | | |

# Scope 3 Downstream Categories

| Cat | Description | Transportation paid by Customer | Calculation method |
|---|---|---|---|
| 9 | Downstream transportation and distribution<br><br>**Paid by customer** | Emissions from transportation and distribution of products sold by the reporting company in the reporting year between the reporting company's operations and the end consumer (if not paid for by the reporting company), including retail and storage (in vehicles and facilities not owned or controlled by the reporting company). | Distance based method for new machines |
| **Summary** | | | |
| There are two sub-categories of deliveries:<br>New machines – full equipment delivered to customer<br>Spares parts – aftersales spares for older equipment delivered to customer<br><br>Currently only new machine sales have been calculated.<br>Estimation has been made to include spares deliveries (100t) | | | |
| **Actions** | | | |
| Spares data to be calculated. This is subject to the same data restrictions as with category S3.4 upstream transportation. | | | |

# Additional Information

Other categories in scope 3

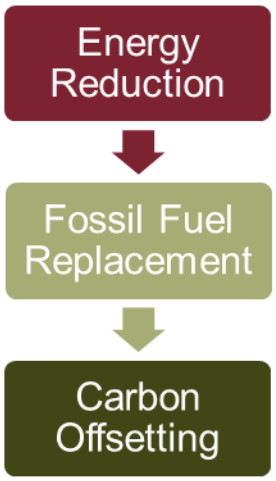
| | | |
|---|---|---|
| 1 | Purchased goods and services (including capital goods) | Upstream (i.e. cradle-to-gate) emissions from the extraction, production and transportation of goods and services purchased or acquired by the reporting company in the reporting year, where not otherwise included in categories 2 to 8. |
| 2 | Capital goods | Upstream (i.e. cradle-to-gate) emissions from the extraction, production and transportation of capital goods purchased or acquired by the reporting company in the reporting year. |
| 3 | Fuel and energy related activities | Emissions related to the extraction, production, and transportation of fuels and energy purchased or acquired by the reporting company in the reporting year, not already accounted for in scope 1 or scope 2. |
| 8 | Upstream leased assets | Emissions from the operation of assets leased by the reporting company (lessee) in the reporting year and not included in scope 1 and scope 2 reported by lessee. |
| 10 | Processing of sold products | Emissions from the processing of intermediate products sold in the reporting year by downstream companies (e.g. manufacturers) subsequent to sale by the reporting company. |
| 11 | Use of sold products | Emissions from the end use of goods and services sold by the reporting company in the reporting year. |
| 12 | End-of-life treatment of sold products | Emissions from the waste disposal and treatment of products sold by the reporting company in the reporting year at the end of their life. |
| 13 | Downstream leased assets | Emissions from the operation of assets owned by the reporting company (lessor) and leased to other entities in the reporting year, not included in scope 1 and scope 2 reported by lessor. |
| 14 | Franchises | Emissions from the operation of franchises in the reporting year, not included in scope 1 and scope 2 reported by franchisor. |
| 15 | Investments | Emissions associated with the operation of the reporting company's investments (including equity and debt investments and project finance) in the reporting year, not already included in scope 1 or scope 2. |

# CARBON REDUCTION PLAN 2023

## Emissions Reduction Targets

In order to continue our progress to achieving Net Zero, we have adopted the following carbon reduction targets.

Bucher municipal is committed to Net Zero by 2050 for scope 1,2 and partial 3. We will achieve this through energy reduction, insulation improvements and through adopting emerging technology. At present the timeline is dependent on adoption of new technology which is reliable enough to provide security for the business, for instance electric vans which cover extensive distances.




The remaining emissions are to be offset through projects which sponsor reduction of emissions in other countries and through local improvement projects.

From analysis of the scopes, our main contributor to emissions totals is the consumption of scope 1 gas and fuels. The gas is used for heating of buildings and for curing of the painted product. Thus we will require infrastructure upgrades for insulation of buildings, and equipment upgrades for the reduction and elimination of natural gas at our main location in Dorking, some of which would require capital investment.

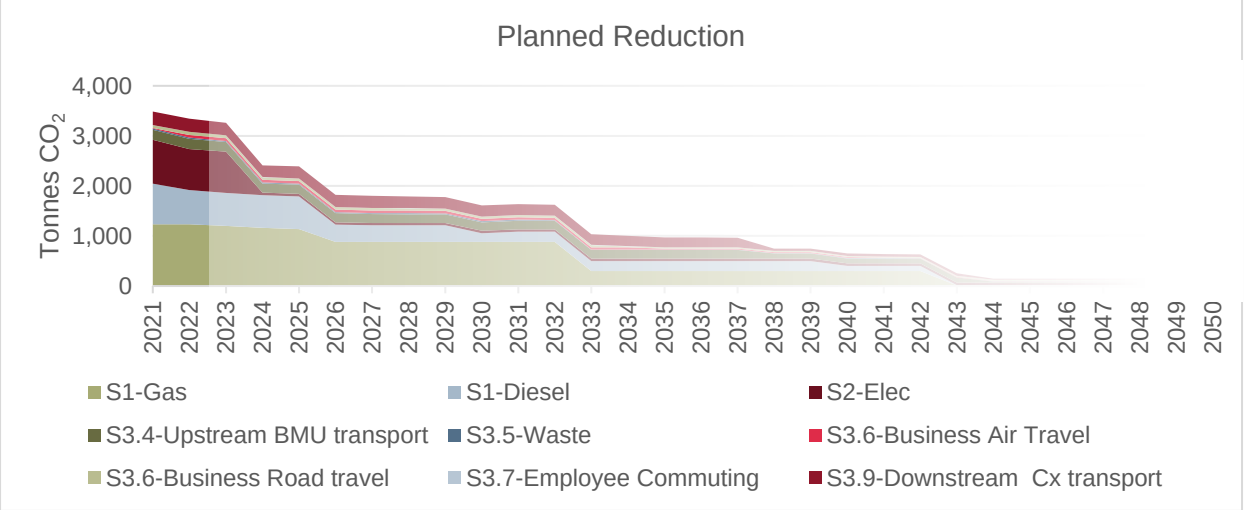
We project that carbon emissions will decrease over the next five years to 2900 tCO2e by 2027. This is a reduction of ~15%

Over the next five years we will select and implement from the following opportunities:

- Switch to renewable electricity for production site – 800t in S2
- Upgrade of large production equipment – 100t in S1
- Insulation improvements, foam insulation, draft proofing, double glazing - not quantified at present – 40t in S1
- Zero waste to landfill – 1t in S3
- Select suppliers based on their emissions, including transport providers – not quantified at present

Longer term reductions will be mainly the elimination of gas in production and heating and diesel in transportation and business travel

Progress against these targets can be seen in the graph below:



# Carbon Reduction Projects

## Completed Initiatives

The following environmental management measures and projects have been completed or implemented since the 2021 baseline. The annual carbon emission reduction achieved by these schemes equate to 124 $tCO_2e$, a 3.5% reduction against the 2021 baseline and the measures will be in effect when performing the contract.

- Remove diesel from production
- Upgrade of brake presses
- Insulation improvements for old welding building
- Installation of water meters to measure water consumption for metal treatment plant
- Change of wet paint product to reduce time spent in oven curing

## Current and Future Initiatives

In the future we hope to implement further measures such as:
Scope 1 – direct combustion & fuels

- Switch from gas ovens to electric ovens, powered by renewable electricity
- Improved insulation in older buildings
- Recirculation of warm air through filtration to reduce heating
- Upgrading of old equipment to low emission and low energy designs
- Switch to biodiesel for all company vehicles and service network
- Heat loss survey to improve heat containment in existing buildings

Scope 2 – indirect electricity

- Change from fossil electricity to renewable electricity within the next 5 years
- Efficient work planning to reduce energy waste when powering buildings
- Monitoring project on specific high energy use equipment
- Dimmable PIR for low use areas – used in conjunction with traditional PIR, they can reduce energy further by lowering the level of lighting before cutting out

Scope 3 – business travel, supply chain, transportation, waste

- Switch from petrol to electric or HVO for company cars
- Remove diesel options for our products
- Promote elimination and reduction of waste and removal of landfill as disposal method
- Promote online working and business interactions
- Promote low carbon transportation solutions

# 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 recorded and reported in accordance with the published reporting standard for Carbon Reduction Plans and the GHG Reporting Protocol corporate standard[1] and uses the appropriate Government emission conversion factors for greenhouse gas company reporting[2].
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].
This Carbon Reduction Plan has been reviewed and signed off by the board of directors (or equivalent management body).

John Halley
Aftersales & Quality Director

31st March 2023

[1] https://ghgprotocol.org/corporate-standard
[2] https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting
[3] https://ghgprotocol.org/standards/scope-3-standard