Quirepace Innovation in Vacuum and Conveying Technology

Carbon Emissions Reduction Plan – Issue 2

Contents

Introduction

Quirepace Limited is committed to reducing its carbon footprint and promoting sustainable practices. We understand that we are in a climate emergency and acknowledge that we have a duty to take steps wherever possible to reduce the impact we have on the planet.

The Brundtland Report states "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" and we must do our bit to help the country and wider world achieve its carbon reduction targets to enable this.

Our collected data for 2025 has been calculated using Greenhouse gas reporting: conversion factors 2025 - GOV.UK and Carbon Waste and Resources Metric | WRAP to provide our kg CO_2e overall footprint and Greenhouse gas reporting - Conversion factors 2015 - GOV.UK to provide our baseline figures.

This Carbon Reductions Plan is not third part verified.

Goals and Objectives

1. Reduce our carbon footprint by 10% by 2030 and achieve net zero greenhouse gas (GHG) emissions by 2050.
2. Increase energy efficiency across our operations.
3. Maintain transition to renewable energy sources.
4. Minimise waste and promote reuse and recycling.

Baseline Emissions Assessment

Quirepace were early adopters of the use of Solar PV at our offices in Fareham which was installed in 2015, we will continue to maintain and improve the system. Our baseline assessment for energy usage will be based on our pre - Solar PV system installation and other primary sources of emissions extrapolated from our 2023 figures being our first produced data

set. Should we have any material changes to our operation the baseline year will be adapted to suit. Our figures are not normalised at present.

Baseline Assessment Calendar Year 2015 (2023)

Energy Consumption

Scope 1	Units	Quantity	kg CO_2e
Natural Gas (2023)			32,801
Scope 2	**Units**	**Quantity**	**kg CO_2e**
Electricity	kWh	78000.0	36051

Transportation

Scope 1	Units	Quantity	kg CO_2e
Diesel	Litres	46312.4	119667
Petrol	Litres	14966.7	32837
Propane	Tonnes	0.1	0

Waste Management

Scope 3	Units	Quantity	kg CO_2e
Water (supply and treatment)	M^3	784.4	825
Plastic Waste (closed loop)	Tonnes	1.5	32
Wood Waste (closed loop)	Tonnes	0.9	19
Paper Waste (closed loop)	Tonnes	0.8	17
Cardboard Waste (closed loop)	Tonnes	0.5	9
WEEE waste (open loop)	Tonnes	0.2	5
Metal Waste	Tonnes	3.9	82
General Commercial Waste	Tonnes	1.8	37

Quirepace Innovation in Vacuum and Conveying Technology

Current carbon/GHG Emissions Calander Year 2025

Primary Sources of Emissions

Energy Consumption

Scope 1	Units	Quantity	kg CO_2e
Natural Gas			16,723
Scope 2	**Units**	**Quantity**	**kg CO_2e**
Electricity (Green Energy)	kWh	33,688	6,975.1

Transportation

Scope 1	Units	Quantity	kg CO_2e
Diesel	Litres	38,7780	97337
Petrol	Litres	17,565	36,886
Propane	Tonnes	0.1	216

Waste Management

Scope 3	Units	Quantity	kg CO_2e
Water (supply and treatment)	M^3	426	642
Plastic Waste (closed loop)	Tonnes	2.75	59
Wood Waste (closed loop)	Tonnes	1.65	35
Paper Waste (closed loop)	Tonnes	0.8	17
Cardboard Waste (closed loop)	Tonnes	0.5	10
WEEE waste (open loop)	Tonnes	0	0
Metal Waste	Tonnes	3.75	23
General Commercial Waste	Tonnes	1.75	37

Renewable Energy Generated

Electricity Generated	Units	Quantity
Solar PV	kWh	103,323

Reduction Strategies & Energy Efficiency

Energy Consumption

We are recording monthly energy usage (Electric & Gas) for offices, workshop/warehouse and our press shop. The electricity that we buy in for the business is a mixture of Zero Carbon Electricity backed by guarantees of Origin and nuclear declarations from SSE and British Gas.

Energy Saving Initiatives Completed

We completed a 10kW Solar PV installation on our offices which should provide annual generation of 16MWh and a 110kW Solar PV installation on our workshop/warehouse building which should provide annual generation of 120MWh in 2015.

We changed all lights in our offices and workshop/warehouse to LED technology in 2020 and those in our Press Shop in 2024.

We changed all windows and doors in our offices and workshop during 2025 to more energy efficient models.

Energy Saving Initiatives Planned

Nothing further planned at present.

Renewable Energy

In 2024 we overhauled the Solar PV system and introduced an EPM so we can start to collect full generation data so we can track and maintain the efficiency of our renewable energy systems. We are now able to track our energy generation for us to consider Battery Storage and the potential of moving our heating to electric power.

Water Usage

In 2025 was 426M^3 no water is used in processes and all water used is for drinking, washing and sanitation, we continue to monitor water usage and have installed PIR sensor urinal flush sensors to minimise water usage in this area. All water is discharged back to sewer.

Transportation

We collect our data by monitoring monthly fuel usage from each company vehicle from fuel card usage, add business miles from expenses and deduct private usage from personal mileage returns.

We collect data from employees who use their own transport to/from the office including vehicle fuel type and distance travelled to/from office.

We collect travel data for business trips (train, ferry & plane) from bookings administrator and from individual employee expenses.

We encourage employees to use the most environmentally mode of transport and to consider the use of video conferencing where possible.

We will continue to improve the fleet to more environmentally efficient vehicles and add efficiencies to the team to reduce vehicle emissions.

Cycle to Work

We have encouraged the use of cycling to work by the use of a 'cycle to work' salary sacrifice scheme so that any employee who is able to ride to work is able to purchase a bike under the scheme. The business also installed a weatherproof and lockable bike shed within the car park in 2022 to ensure that employees bikes would be safe and secure when left on business premises.

Public Transport

Our offices and workshop are in a major Industrial Estate in Fareham but with poor public transport links; the nearest train station being a >30-minute walk and the nearest bus station >25-minute walk with no bus link. We are trying to encourage the local borough council to improve public transport to the Industrial Estate to make this a more viable option.

Vehicle Fleet

Our fleet consists of delivery vehicles, engineer's vans and cars for sales, operations and management staff. Our fleet will continue to evolve as technology within the limitations of meeting the needs of the business operation. Our fleet policy in general is to replace vehicles on a four-year rolling programme though we do have some minor exceptions where mileage usage proves this to be uneconomical:

Delivery Vehicles

We removed the single HGV from our fleet during 2023 which was replaced with a long wheelbase low loader 3,500kg vehicle as although the equipment we move can be quite long (typical plastic tube 5M long) it is not heavy and so a Euro 6.3 vehicle was deemed most economical end environmentally friendly for these nationwide deliveries.

We currently have two L3/H3 Panel Vans which are Euro 6EA which replaced similar Euro 5 vehicles in 2024, these vans are being used for nationwide delivery and it is not possible to move to EV power due to current range limitation.

During 2024 we purchased our first full EV small van for local deliveries to suppliers and between our operational areas. We also installed a pair of EV chargers fed from our Solar PV system.

Engineers Vans

We operate a fleet of small vans for service and installation staff. All vehicles are now Euro 6 A* diesel vehicles. Engineers operate from home bases across the UK and the current public infrastructure does not support the change to EV's for these employees.

We have introduced a CMMS system during 2024 and use real time tracker information from vehicles to help reduce the number of trips and allocate jobs depending upon engineer location (and skill) to improve the efficiency of the team.

Company Cars

We operate a mixture of Hybrid and Plugin Hybrid Vehicles all of which are Euro 6 A*, these are based from employee's home addresses.

Waste Management

We produce waste from the works completed at our head office and manufacturing operations in Fareham and from our site works, we can monitor and collect data for works completed at our premises (which will include some waste collected from our site operations) but our site operations will also create waste which is disposed of at the sites from which we operate. All our operations will follow the same mantra to always reuse and then recycle before any other method of disposal following the Waste Hierarchy: Prevention, reuse, recycle, other recovery & disposal.

Our waste will be project driven as well as being produced through our production processes. A lot of projects we undertake are for lifecycle of Pneumatic Tube Systems. The removed components are often recovered to our works where they will be dismantled with some parts being reused and others segregated into their various waste streams.

We collect waste data monthly from the following waste streams:

Plastic Waste

We manufacture components and install UPVC transmission tube as part of our Pneumatic Tube System business. Systems are modular and tube is cut on site from preformed bends and 5M lengths of tube, we will reuse off cuts until it is not practical to do so, these off cuts will then be disposed of in segregated waste streams onsite which we do not record. We often complete lifecycle works and old modular components (stations and diverters) will often be returned to our premises where they will be dismantled for parts to be reused/recycled.

We use a local recycling company for disposal and assume that 50% of skip usage is for plastic waste and they confirm that 90-95% of plastic waste from skips is recycled.

Wood Waste

Materials are delivered to our premises on wooden pallets or in wooden crates and we will reuse pallets to ship our goods where practical but we do take in more pallets/crates than we can reuse and so some poorer quality (end of life) or non-standard sizes must be disposed of:

We use a local recycling company for disposal and assume that 30% of skip usage is for wood waste and they confirm that 90-95% of wood waste from skips is recycled.

Cardboard Waste

Materials are delivered to our premises in cardboard boxes and we will reuse boxes when shipping goods to customers/engineers where practical but we do take in more boxes than we can reuse and so they must be disposed of:

We use a local recycling company for disposal and recycling and collect monthly data as to how many times we fill a 1,100L wheelie bin.

We are encouraging our suppliers to use less packaging and for any required to be reusable or fully recyclable.

Paper Waste

Our company currently uses paper-based processes internally and for our remote team of engineers:

We use a local recycling company for disposal and recycling and collect monthly data on the number of circa 12kg bags that are sent for recycling.

During 2024 we introduced a CMMS system to reduce the amount of paper we produce in the field for both ourselves and our customers as we move towards electronic reporting.

We selected a new ERP system during 2025 which will enable us to reduce the paper needed for the business to operate, we will implement Microsoft Dynamics Business Central during 2026, this electronic system will help reduce our paper usage.

WEEE Waste

We produce WEEE waste through our service operations; we look after circa 5,000 maintainable assets on Pneumatic Tube Systems throughout the NHS estate, each asset is controlled by a PCB. When a PCB failure occurs in the field we have limited component level repair capability and the quickest fix is normally replacement. The damaged PCB's are returned to our offices where component level testing and repair is completed. If the PCB is repairable, it will re-enter service as a repaired spare part. Should the PCB be damaged beyond economical repair it will be stripped of reusable components and disposed of as WEEE hazardous waste.

We use a specialist recycling company for disposal and recycling and collect monthly data as to how many times we fill a wheelie bin with an average 88kg net weight.

We try to extend the use of computer equipment as long as reasonably practical through in-house upgrade from our IT department. However after up to 8 years the equipment is end of

life, we then dispose of this equipment through a specialist company that recycles these items, we dispose of about 150kg per annum.

Metal Waste (Steel, Aluminium & Copper)

We produce aluminium and steel waste at our press shop as part of the process and aluminium, steel and copper waste at our head office workshop.

Our Press Shop produces components for our industrial vacuum and exhauster/blower products, the process of blanking produces waste when produced from a sheet of raw material, we will cut the base sheets to size to minimise the wastage from the particular component being produced.

Our workshop in Fareham provides assembly only but we produce waste through the repair and refurbishment service we offer as well as some minor scrappage of items. The vacuum machines we manufacture are generally of all-metal construction and we often have machines come back after many years of operation. We will reuse and repair all serviceable items but those beyond repair will be recycled through specialist providers. We also (as plastic waste above) recover metal parts from the return of lifecycle replaced pneumatic tube system components where metal components are kept for reuse or recycled.

We segregate the various metal types and use local recycling companies for recycling and collect monthly data on the amount of each stream being recycled. Note our Press Shop is in a shared industrial unit and the recycling container for steel is shared, we estimate 50% is produced by our processing.

Food Waste

We do not have any restaurant facilities on site but employees do eat on our premises and we will be introducing food waste recycling measures as required by law..

Monitoring and Reporting Data Entry

GHG Emmissons

We first collected data on GHG emissions from all sources (energy, transportation & waste) in 2023 to compile an annual report for that calendar year, we now collect monthly data.

We will maintain detailed ongoing records and have provided estimated details of our baseline emissions from 2015 when we first implemented reduction strategies in order to track our reduction progress. These records will be improved as we start to collect better data sets with monthly data collection.

We will update our records following implementation of new reduction measures.

As we improve our awareness and identify further areas of carbon emissions that are not currently reported, we will add to our baseline and include in future reports.

Annual Reports

We compile data monthly, so we are able to produce annual reports as requested from our customers calendar year/fiscal year, reporting all sources including renewable energy production and usage.

We will document all adjustments made to strategies and their outcomes.

We will log feedback from stakeholders and any subsequent action plans.

Employee Engagement

We have encouraged employee participation in energy saving opportunities and rolled out training during 2025 through Human Focus our online training provider. We will engage with our team to ensure they feel involved and understand their part in the GHG reduction journey that the company is undertaking.

We will record feedback from employees on areas for improvement and openly discuss suggestions and implement if beneficial and practical to do so.

Supplier Engagement

We will collaborate with suppliers to encourage them to reduce their carbon footprint with our support through design and process development and track any changes made.

We will maintain a record of supplier good practice through our vendor questionnaire which now includes an environmental section.

Review and Improve

We will conduct an annual review of the carbon reduction plan to ensure it provides a realistic basis of expectations and targets while tracking performance against the latest produced metrics.

We will update and refine strategies based on performance and best practice and record ongoing research and development aimed at future improvement.

Richard Pescott

Managing Director

Date: 2nd April 2026

Revision date: 1st April 2027