Carbon Reduction Plan

PPN06/21
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August 2025

PDS
Infrastructure systems

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Contents

1.0 Commitment to achieving Net Zero

P Ducker Systems is committed to achieving Net Zero emissions by 2030.

We refer to our scope 1 and 2 carbon emissions as our business operations carbon, as it relates to our own use of energy for our own operations and is under our control. We will achieve net zero for scope 1 and 2 by 2030. P Ducker Systems will use Carbon offsetting to go beyond Carbon Zero.

1.1 Our approach to carbon reduction

We have set out our approach to carbon reduction in accordance with PPN 06/21 and associated guidance and reporting standards for Carbon Reduction Plans to delivering Net zero:

Avoid:	We will review business decisions and work to avoid adding additional emission, wherever possible
Reduce:	We will apply efficiency principles across all our operations
Substitute:	We will adopt renewables and low carbon technologies where practicable
Offset:	We will create offsetting opportunities where we cannot reduce or eliminate carbon

1.2 Scopes and reporting boundaries

Our full reporting scope includes all Scope 1 and 2 emissions for the P Ducker Systems offices within our operational control. We also report on several Scope 3 emissions categories which have the most material impact.

Where P Ducker Systems has operational control, the calculation methods are detailed below. P Ducker Systems does not currently quantify Waste as we only have operational control over the Waste Electrical and electronic equipment, all other waste streams are shared by other tenants. District heating is also excluded as P Ducker Systems does not purchase heat from district heating systems.

Emissions	Scope	Method and Data Source
Scope 1		
Diesel Data unit is litres	Diesel fuel consumed by P Ducker Systems vehicles / Grey fleet/ hire vehicles	Data collection from receipts / fuel claims Diesel consumption we use the UK-based the carbon factors used to convert diesel consumption into emissions are sourced from DEFRA 2020 GHG Emissions Factors.
Petrol Data unit is litres	Petrol fuel consumed by P Ducker Systems vehicles / Grey fleet/ hire vehicles	Data collection from receipts / fuel claims Petrol consumption we use the UK-based the carbon factors used to convert diesel consumption into emissions are sourced from DEFRA 2020 GHG Emissions Factors.
Natural Gas Data unit is m3	Purchased natural gas at P Ducker Systems office	Data collected through meter reading (1088/REG/004) Our natural gas consumption occurs within UK, therefore the carbon factors used to convert gas consumption into emissions are sourced from DEFRA 2020 GHG Emissions Factors.
Refrigerants Data unit is kg	Refrigerant disposal and leakage from air conditioning systems	Air conditioning maintenance reports

Emissions	Scope	Method and Data Source
Scope 2		
District heating	Purchased heat from district heating systems	This category is excluded as P Ducker Systems does not purchase heat from district heating systems
Electricity Data unit is kWh	Emissions associated with electricity consumed at PDS office Olympus house	Data collected through meter reading (1088/REG/004) Carbon emissions associated with electricity consumption are calculated as both market-based and location-based emissions. Carbon factors used to convert electricity consumption into emissions are sourced DEFRA 2020 GHG Emissions Factors used for UK emissions

Emissions	Scope	Method and Data Source
Scope 3		
Business travel Data unit is miles	Emissions associated with business travel	Data collected through PDS expenses, flight, train, ferry, taxi bookings. Emissions associated with the majority of business travel are calculated using DEFRA 2020 GHG Conversion Factors and a miles travelled conversion factor. For a small number of international business travel movements miles travelled is not available. In these cases, a spend proxy is used.
Employee commuting Data unit is miles	Emissions associated with employees travling into the office	Employee commuting using average miles commuted in to the office, then subtracted day of site work and working from home. Emissions associated with the travel are calculated using DEFRA 2020 GHG Conversion Factors and a mile travelled conversion factor.
Cycling to work Data unit is miles	Cycling associated with employees travling into the office	Data collected through Strava
Downstream transportation	Emissions associated with transportation	Transporting goods to customers via third-party logistics providers
Upstream transportation Data unit is miles	Emissions associated with transportation	Data collected from finance. Emissions associated with the majority of transportation are calculated using DEFRA 2020 GHG Conversion Factors and a mile travelled conversion factor.
Waste* Data unit is tones	Waste to landfill generated in our construction projects	Data collected through waste transfer notes. *Not currently included within our NetZero plan as we are in a shared office and have no control over what enters the waste streams.

2.0 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.

Baseline Year: 2019	
Additional Details relating to the Baseline Emissions calculations.	
2019 is being used as our baseline targets for carbon emissions, it is thought that our Scope 2 and Scope 3 emissions would rise slightly due to PDS now having a better reporting process, as historically PDS had not reported on all scopes as only fuel consumption and purchased energy had been reported on.	
Baseline year emissions:	
EMISSIONS	**TOTAL (tCO2e)**
Scope 1	49.93 (tCO2e)
Scope 2	49.40 (tCO2e)
Scope 3 **(Included Sources)**	6.31 (tCO2e) Business travel (flights) 65.65 (tCO2e) Employee commuting 52.18*Tons Waste generated in operations 384* miles Cycle to Work miles
Total Emissions	171.29 (tCO2e) *Not recoded as tCO2e - see note 4.4 Waste

Current Emissions Reporting

Reporting Year: 2020	
EMISSIONS	**TOTAL (tCO2e)**
Scope 1	49.84 (tCO2e)
Scope 2	63.85 (tCO2e)
Scope 3 **(Included Sources)**	1.30 (tCO2e) Business travel (flights) 28.99 (tCO2e) Employee commuting 52.96* Tons Waste generated in operations 441* miles Cycle to Work miles 116* Birch tree planted
Total Emissions	145.03 (tCO2e) *Not recoded as tCO2e - see note 4.4 Waste

Reporting Year: 2021	
EMISSIONS	**TOTAL (tCO2e)**
Scope 1	49.97 (tCO2e)
Scope 2	34.84 (tCO2e)
Scope 3 **(Included Sources)**	10.32 (tCO2e) Business travel (flights) 36.39 (tCO2e) Employee commuting 1.37 (tCO2e) Downstream Transportation and distribution 52.16* Tons Waste generated in operations 396* miles Cycle to Work miles Upstream Transportation zero
Total Emissions	130.89 (tCO2e) *Not recoded as tCO2e - see note 4.4 Waste

Reporting Year: 2022	
EMISSIONS	**TOTAL (tCO2e)**
Scope 1	42.81 (tCO2e)
Scope 2	32.45 (tCO2e)
Scope 3 **(Included Sources)**	26.97 (tCO2e) Business travel (flights) 45.95 (tCO2e) Employee commuting 0.16 (tCO2e) Downstream Transportation and distribution 52.73* Tons Waste generated in operations 3038.6* miles Cycle to Work miles Upstream Transportation zero
Total Emissions	148.51 (tCO2e) *Not recoded as tCO2e - see note 4.4 Waste

Reporting Year: 2023	
EMISSIONS	**TOTAL (tCO2e)**
Scope 1	66.94 (tCO2e)
Scope 2	39.96 (tCO2e)
Scope 3 **(Included Sources)**	15.57 (tCO2e) Business travel 41.77 (tCO2e) Employee commuting 0.28 (tCO2e) Downstream Transportation and distribution 52.73* Tons Waste generated in operations 2500* miles Cycle to Work miles Upstream Transportation zero
Total Emissions	164.25 (tCO2e) *Not recoded as tCO2e - see note 4.4 Waste

Reporting Year: 2024	
EMISSIONS	**TOTAL (tCO2e)**
Scope 1	56.8 fuel 0.34 Gas Total scope 1 57.14 (tCO2e)
Scope 2	Total Scope 2 emissions amount to 41.83 tCO_2e, reduced by 7.6 tCO_2e through solar energy generation exported to the grid. Total Scope 2 34.23 (tCO_2e)
Scope 3 **(Included Sources)**	11.68 (tCO2e) Business travel (flights) 1.48 (tCO2e) Business travel (Taxis) 0.22 (tCO2e) Business travel (Rail) 42.36 (tCO2e) Employee commuting 0.68 (tCO2e) Downstream Transportation and distribution 52.73* Tons Waste generated in operations 2,374.9* miles Cycle to Work miles (saved 0.64 tCO2e) Total Scope 3 56.42 (tCO2e) Upstream Transportation zero
Total Emissions	147.79 (tCO2e) *Not recoded as tCO2e - see note 4.4 Waste

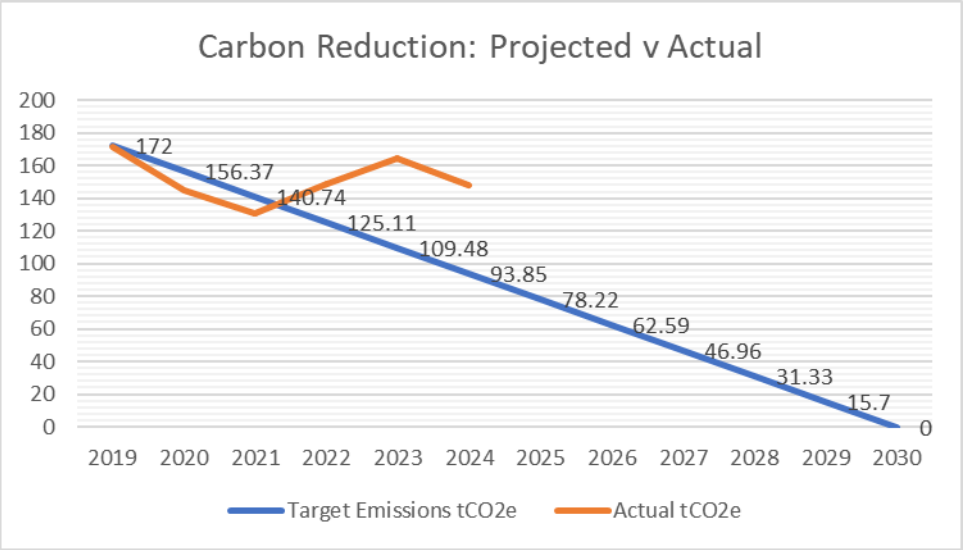
3.0 Emissions reduction targets

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

PDS commits to reduce absolute Scope 1 and 2 GHG emissions 100% by 2030 from a 2019 base year and scope 3 emissions by 100% over the same timeframe.

We project that carbon emissions will decrease over the next five years to 78.22 tCO2e a 54.5233% reduction against the 2019 baseline.

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



In 2024, P Ducker Systems (PDS) reported total emissions of 147.79 tCO_2e, exceeding the net zero target of 93.85 tCO_2e by 53.94 tCO_2e. This increase, compared to our 2019 baseline, is largely attributed to significant workforce growth. The number of employees rose from 42 in 2019 to an average of 70 in 2024, representing a 66.7% increase, with a 16.7% rise from 2023 alone.

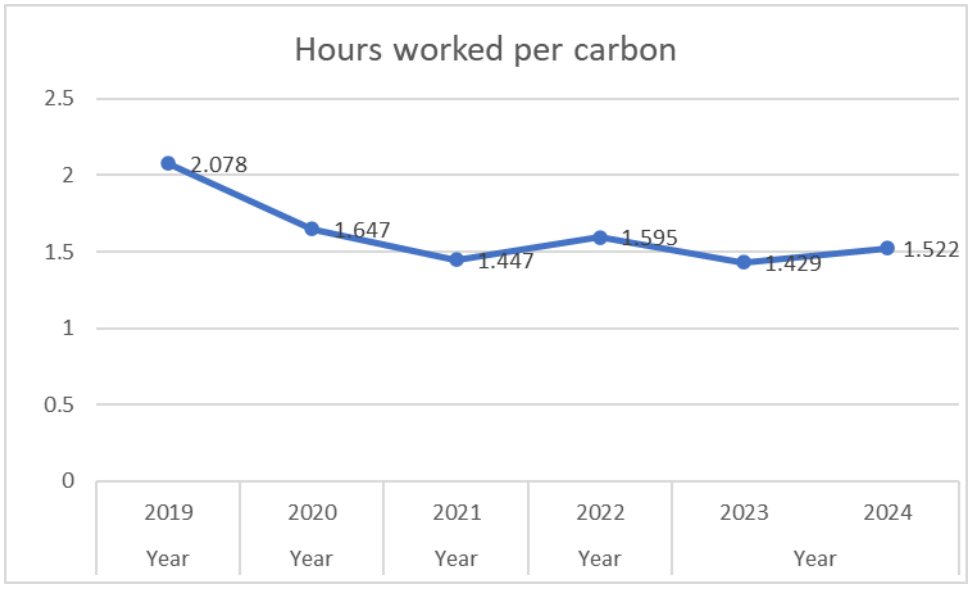
In September 2024, solar panels were installed on the roof of our office. Since installation, we have generated 8,272.90 kWh of solar energy, which has been fed back into the grid. This equates to approximately 7,611.07 kg of CO_2 emissions avoided.

Another contributing factor to the increase in energy usage is the installation of 10 electric vehicle (EV) chargers at Olympus House, which accounted for 10,258.01 kWh of electricity used for EV charging. This usage added 3.93 tCO_2e to our Scope 2 emissions. Without EV charging, our Scope 2 total would have been 30.3 tCO_2e.

Also, during 2024, due to business growth, our fleet expanded from 8 to 11 vehicles. Two of these vehicles (Suzuki Swaces) are self-charging hybrids.

As the business continues to grow, our carbon emissions have naturally increased. To more accurately reflect emissions in proportion to operational activity, we now calculate carbon intensity using the following metric: (Total carbon emissions ÷ total hours worked) × 1,000

This approach allows us to monitor emissions performance relative to business expansion.



The increase in the 10 more employees from 2023 to 2024 has had an impact on the hours worked per carbon. During this period our number of employees increased by 16.7%

4.0 Carbon Reduction Projects

Completed Carbon Reduction Initiatives

The following environmental management measures and projects have been completed or implemented since the 2019 baseline.

These include the following: -

Strategic: -

Continued certification to ISO 14001 Environmental Management Systems (PDS Achieved ISO 14001 in October 2013)

Promote the Cycle to Work Scheme

We have started to migrate our fleet to low emission models and currently now have one Hybrid vehicle and one PHEV in our fleet with a view to expand this as our vehicle leases expire.

All new equipment is assessed for its energy efficiency before being purchased

Switched to renewable energy supplier

Energy Reduction Projects: -

- Old monitors have been replaced with energy efficient flat screen models
- PIR sensors have been fitted around the office, providing automatic lighting control
- Set the heating not to come on over weekends
- Arranged the office to ensure that radiators are not obstructed by office equipment and furniture
- Photocopiers have been removed, and replaced with low energy printers
- We have removed all kettles from the office and replaced these with more energy efficient Zipp taps

We also expect our Scope 2 & 3 to slightly increases during the reporting period due to better reporting.

Scope 1 - Mobile combustion

- Look at engineers sharing vehicles and moving to a more energy efficient, lower emission fleet (Hybrid / Electric / Hydrogen).

Scope 2 - Electricity

- Look for cleaner energy provider –
- Look towards PDS producing their own energy, identify energy usages within the building (lights / server / Ziptaps) to then be able to establish what energy could be saved and where.
- EPC assessment to be carried out to identify other areas where energy can be saved (building insulation) better control of the heating in the office (To be set to go off after 17:00). Look at benefits of LED lighting within the office.
- Advanced building management systems controlling energy consumption

Scope 3: Business Travel

- Only using flying where there are no other options.
- Look to use Microsoft Teams where this is best to do so.
- Further promote the Cycle to Work scheme.
- Using Hybrid Working to reduce that amount of employee commuting.
- Reduce the number of waste collections carried out.

Other green issues: -

- Reduce the use of plastic
- Increases biodiversity in the PDS office garden.
- Introduce plant-based options where client lunches are being held
- Look to work with Suppliers who are ambitious on delivering on green issues

As a business we will continue to investigate areas for improvement, in the future we hope to implement further measures such as: -

- Carbon offsetting to go beyond Carbon Zero by Offsetting CO2 emissions by investing in Certified International Carbon Offsetting Projects.
- Continue migration of our fleet to lower emission and electric models.

4.1 Carbon reduction projects carried out during 2023.

The following carbon reduction measures and projects were completed during 2023: -

- Installing Showers to Promote Cycling and Wellbeing: Showers were installed to encourage employees to cycle to work, supporting both health and sustainable commuting practices.
- Vehicle Electrification: A portion of the company's vehicle fleet has been migrated to electric vehicles, reducing emissions from transportation.

- Installation of 10 EV Chargers at Derby Office: PDS has installed 10 electric vehicle charging points at the Derby office, promoting the use of electric vehicles by employees and visitor

- Employee Electric Vehicle Salary Sacrifice Scheme: PDS introduced an Electric Vehicle Salary Sacrifice Scheme, enabling employees to lease electric vehicles through their salary, further promoting the transition to cleaner transportation.

4.2 Carbon reduction projects to be carried out during 2024.

The following carbon reduction measures and projects were carried out in 2024:

- Installation of Solar Panels: PDS plans to install solar panels at its office in 2024, helping reduce reliance on external energy sources and lowering carbon emissions.

- Carpark Space Booking Scheme: Employees who do not require a car parking space will be entered into a monthly draw to win vouchers. This initiative encourages carpooling or alternative transport options, contributing to reducing emissions from employee commuting.
- Recycling of Old PPE: A new initiative will be introduced to recycle old Personal Protective Equipment (PPE), ensuring the responsible disposal of materials and minimising waste.
- Vehicle Telematics & Driver Safety: PDS will implement telematics to monitor vehicle usage and promote safer, more efficient driving practices, reducing fuel consumption and associated emissions.
- 116 Silver Birch trees were planted, which are expected to offset approximately 2.55 tonnes of CO_2 over their lifetime.

4.3 Carbon reduction projects to be carried out in 2025

The following carbon reduction measures and projects are planned for 2025:

- Switch to 100% ESOS-compliant Energy Provider: PDS will transition to an energy provider that is fully compliant with the Energy Savings Opportunity Scheme (ESOS), ensuring that all energy consumed is sourced from 100% renewable sources. This change, reflected in our 2024 Scope 2 emissions, is expected to result in a reduction of over 40 tonnes of CO_2.
- 2025 will be the first full year of utilising our solar panels, during which we estimate generating over 24,818.7 kWh of solar energy. This energy will be fed back into the grid, resulting in an estimated avoidance of approximately 30 tonnes of CO_2e emissions.
- By switching to an ESOS-compliant energy provider, we expect to save approximately 40 tonnes of CO_2. Combined with the estimated 30 tonnes of CO_2 savings from solar generation, we anticipate a total reduction of 70 tonnes. If no other factors change, this will bring our total carbon emissions down to an estimated 77 tonnes just below our 2025 target of 78.22 tonnes.

4.4 Waste

Currently, our waste does not form part of our Net Zero Plan, as historically we have had limited control over it. At our office, waste is collected in shared bins with other companies, and Derby City Council does not provide individualised weight data—only an annual waste transfer note. As a result, our waste tonnage has previously been estimated based on bin sizes rather than precise weight measurements.

However, with the introduction of the Waste Separation Regulations in England from 31st March, we have engaged a new waste service provider. Moving forward, we will receive a detailed waste transfer note for each collection, and the bins will be weighed before being emptied. This will provide accurate data on the quantities and types of waste produced. This information will now be included in our Net Zero Plan.

5.0 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 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.

This Carbon Reduction Plan has been reviewed and signed off by the Managing Director.

Name	Nathan Lawson
Position	Managing Director
Signed	N Lawson
Date	28 Aug 2025

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

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Signable

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