



Carbon Reduction Plan

2022/23

Declaration and Commitment

This Carbon Reduction Plan has been completed in accordance with PPN 06/21 and associated guidance for Carbon Reduction Plans. It will outline the measured carbon emissions for the previous year, identify our significant carbon sources and detail the measures that we plan to put into place to reduce our emissions approaching 2050.

Carbon emissions have been measured using the appropriate DBEIS Greenhouse Gas (GHG) reporting conversion factors for company reporting and reported in accordance with the published reporting standard for Carbon Reduction Plans and the GHG Protocol Corporate Standard. Scope 1 and Scope 2 emissions have been reported in accordance with Streamlined Energy & Carbon Reporting (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.

Dyer & Butler Ltd is committed to achieving Net Zero emissions by 2050.



Richard Walker
Managing Director
August 2022



Scope of the Carbon Footprint

This Carbon Reduction Plan applies to Dyer & Butler Ltd as a whole, containing emissions for our activities in each divisional discipline (Rail, Aviation & Adjacent Markets) and our overhead functions.

Our carbon measurement methodology follows the guidance and principles set out in the GHG Protocol Corporate Standard and the Corporate Value Chain (Scope 3) Standard, unless specified in this plan. It is built into our integrated management system, which is certified to ISO 14001. We do not currently seek 3rd party verification of our emissions through any other standard, however we plan to do so in the next two years.

Reporting

Our emissions are reported annually and externally via:

- Submissions to our Group for SECR and Environmental and Social Governance (ESG) reporting
- Publication of this Carbon Reduction Plan on our website
- Submission to the CDP voluntary reporting framework

In August 2021, we formally committed to setting a science-based GHG reduction target in line with the 2°C climate scenario. Once set and approved, our reporting will include data to support this target. We are working with our parent company (MGroup Services) to align our SBTs to the group and the 1.5°C climate scenario.

Calculated Emission Sources

Between the 2014/15 and 2017/18 reporting year, our reported emission sources encompassed our Scope 1 and Scope 2 emissions, and only one Scope 3 emission source. Since the 2018/19 reporting year, our Scope 3 emission sources have further expended annually – see Table 1. Where there are opportunities to apply additional emission sources to previous years, with a clear justification to apply them, we have done so, however there are some sources within our measurement methods that have not been applied to historic data due to the lack of data availability, or a disproportionate resource intensity vs benefit outcome.

Table 1 details which emissions sources have been measured for each reporting year. This is updated as more sources are included, and/or applied to previous years.

Reporting Year	Scope 1	Scope 2	Scope 3			
2014-15	Fuels Company vehicles	Electricity	Grey fleet			
2015-16						
2016-17						
2017-18						
2018-19						
2019-20	Company vehicles	Electricity	Grey fleet	Electricity T&D	Business travel	Employee commuting
2020-21				Waste		Upstream transport and distribution
2021-22						Supply chain & materials

Table 1: Scope inclusion by reporting year.

The current Scope 3 emissions sources do not include Well-To-Tank (WTT) emissions. We are planning to add these in the future and calculate values for previous years where possible.

Our emissions are based on volume/mass of fuel used, kWhs of electricity, distance travelled, and tonnes of waste. Where data in these units of measurement is not available, we have used figures based on industry knowledge to convert from financial data, in-line with GHG Protocol guidance. We have assigned tags to our data, to differentiate between data that was sourced in the correct unit, and data that required industry knowledge to convert it to a usable format. These measurements are multiplied by a relevant source emissions conversion factor to produce a CO₂e figure. The external datasets we use are:

- UK Government (BEIS) GHG Reporting conversion factors for the relevant reporting year
- UK Government (BEIS) monthly prices of road fuels and petroleum products
- UK Government (ONS) carbon dioxide emissions intensity by industry, 1997 to 2016 and provisional 2017

We have deviated from the GHG Corporate Value Chain (Scope 3) Standard methodology in relation to our upstream transport and distribution emissions, as weight data was not available. Instead, we have used delivery distance with the GHG conversion factor for freight miles to calculate carbon emissions. It is our intention to improve the data parameters in the future.

Compliance with PPN06/21

With regards to the Scope 3 requirements of PPN06/21 described in the PPN06/21 Technical Standard, “Downstream transportation and distribution” is not relevant to our business activities, as we self-deliver this type of activity and include emissions calculation in our Scope 1.

Baseline Emissions Footprint

Our baseline year was set as 2014/15. Due to the availability of data, it was not possible to calculate emissions previous to then with an acceptable level of accuracy.

The emissions sources included in our baseline calculation are detailed in Table 1. Many Scope 3 emission sources have been omitted as data is not available. We are assessing the need to reset our baseline and will make changes in the next reporting year if needed. Our total emissions (tCO₂e) for this 2014/15 baseline year are shown in Table 2 below.

Reporting Year: 2014/15		
Emissions	Total (CO ₂ e)	Footprint %
Scope 1	5583.27	89.45
Scope 2	158.89	
Scope 3	677.10	10.55
Total Emissions	6419.26	100

Table 2: Baseline emissions

Latest Emissions Footprint

Our latest emissions include the scopes outlined in Table 1. Our total emissions (tCO₂e) for the latest 2021/22 reporting year are shown in Table 3 below.

Reporting Year: 2021/22		
Emissions	Total (CO ₂ e)	Footprint %
Scope 1	2958.98	22.60
Scope 2	19.81	
Scope 3	10203.49	77.40
Total Emissions	13182.28	100

Table 3: Last reporting year emissions

Emissions Trend

Our total emissions have fluctuated since the baseline year. Figure 1 shows our measured emissions from the 2021/2022 reporting year back to 2014/2015 and the required emission reduction up to 2049/2050 to achieve Net Zero by 2050.

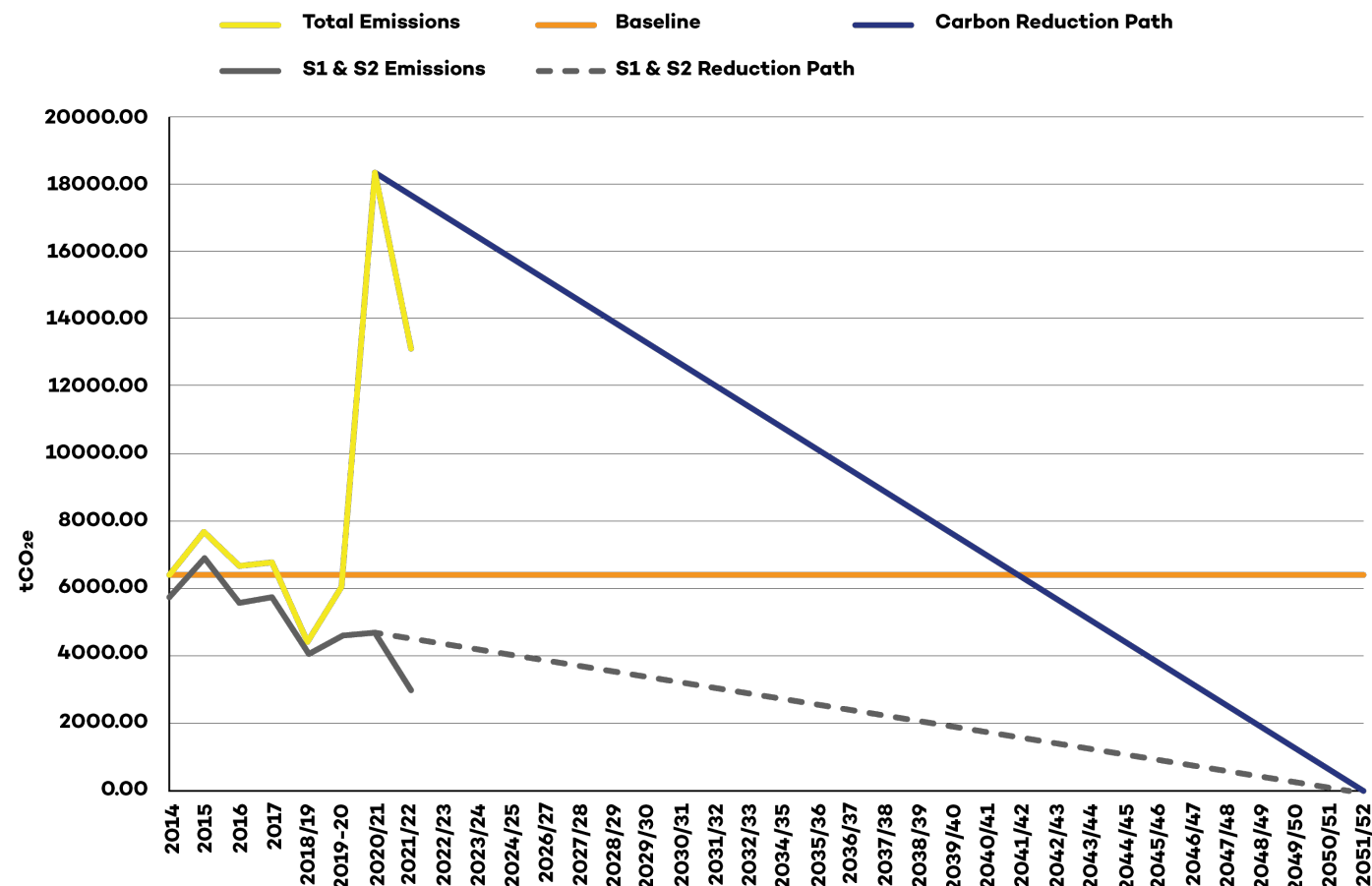


Figure 1: Total emissions (tCO2e) with targets.

The additional (new) Scope 3 data sources could not be calculated prior to April 2020, which caused the total emissions to increase significantly for the 2020/21 reporting year. Combined emissions for Scopes 1 & 2 have been included for clarity of our reduction activity since our original baseline year. Since 2014/2015, total emissions have been below the baseline in two of the past reporting years (in 2018/19 and in 2019/20). Emissions reduced significantly in 2021/22.

There are many factors affecting our reduction progress, however the two constant factors are:

- Work intensity – as the amount of work we do increases and the business grows, emissions have the potential to increase, unless mitigation is put in place.
- Scope 3 expansion – as more data or data sources become available, our Scope 3 emissions will increase, particularly when the sources cannot be applied to previous years. This increase is clearly substantial (as shown in Figure 1) but will level out over the next few years as we finalise the sources that are included in our scope.

Two additional events occurred in 2021/22 which influenced the emissions:

- Changes to our data sources caused some data to be temporarily excluded, however the significant emission sources have been included. The data will be reassessed in 2022 and the totals will be updated in the next CRP (2023).
- A portion of our business operations transferred to a sister company during the reporting year, reducing emissions liability.

Emission Reduction Target

We have chosen to split our net zero pathway into manageable timeframes. The current timeframe is outlined in our environment strategy and covers the years 2020 to 2023.

Our emissions target for the current strategy is:

Reduce carbon emissions year-on-year to achieve a 20% reduction by April 2023

This target is based on the 2019/20 reporting year, which had a total emissions figure of 6032.39 tCO2e, however that year did not take the additional Scope 3 data sources (required by PPNO6/21) into account – see Table 1. Therefore, to achieve a 20% reduction with new Scope 3 increases factored in, the equivalent emissions for the 2022/23 year will need to be 15,762.43 tCO2e or less.

Switch to HVO

Hydrotreated Vegetable Oil (HVO) is a synthetic low carbon biofuel, which has a closed loop carbon cycle. Its chemical structure makes it compatible as a direct replacement for gas oil or diesel, without engine modification. Based on the 2020/21 emissions data, a complete switch from gas oil to HVO would decrease Scope 1 emissions by 53.08%, saving 2909.1 tCO2e. This is a carbon source reduction of 99.92%.

This switch to HVO began in April 2022 and is anticipated to be completed by April 2023, however not all fleet vehicles are compatible. We are assessing our fleet, which will lead to a reassessment of the saving. However, 8 tonnes CO2e were saved in the first month of use from one project site.

It is noted that as a biogenic carbon emission, HVO is outside of the scope of the GHG Protocol Corporate Standard. We will use it to progress towards achieving net zero, however we will be highlighting the biogenic CO2, outside of our carbon footprint, to account for the carbon emissions in the closed cycle.

Grid Power Policy

We have added a commitment to using grid power with our sustainability policy, aiming at choosing to connect projects to the national grid, where the ability to do so is technically possible and commercially viable (based on project length). Use of grid power removes over 30% of wasted energy associated with diesel generation (through heat and inefficient running when in low demand).

Many of these connections are supplied as standard tariffs, rather than renewable tariffs. We aim to choose renewable tariffs when they are available, however this is not always the case with temporary connections. Average grid power is made up of 40-50% renewable energy, so as grid renewables increase, we expect a reduction in carbon emissions as the conversion factor changes.

Hybrid Generators

Where our projects cannot connect to the electricity grid, we will need to continue to use generators. Solar Pods or hybrid generators will be used to reduce low load electricity generation. By running generators at a high load for short periods, in order to charge the battery (or using solar power), the quantity of fuel used, and the amount of energy lost through heat will decrease, reducing emissions. In a recent trial of two Solar Pods on one of our projects, during winter, we reduced the generator running time by 477 hours over 14 days, resulting in an 8.34 tCO₂e saving. These types of generators have the potential to save large quantities of emissions across our projects.

Further trials in 2021 and early 2022 proved viability. We are planning further use of Solar Pods on future projects, as well as looking at opportunities for using hybrid and hydrogen fuel cell generators.

Hybrid / Electric Plant / Road Vehicles

We will trial and adopt more hybrid or electric plant and road vehicles. Current areas of focus include:

- Battery and hydrogen lighting towers/site lighting
- Hybrid and electric excavators and dumpers
- Hybrid and electric vans

Our fleet is due for replacement in the next two years, with a focus on electric vehicles, following MGroup Services' commitment to the EV100.





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