



Rail Delivery Group

Summary Report – Carbon Footprint

FY20/21

Rail Delivery Group



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1. Introduction

This report summarises the Rail Delivery Group's (RDG) carbon footprint for the financial year 2020-2021 (the 12 month period from 1st April 2020 - 31th March 2021). The methodology, key limitations and recommendations for improvement in subsequent years are also outlined. This report forms part of a number of documents produced by ClearLead Consulting to calculate and document RDG's baseline carbon footprint.

Introduction to the Rail Delivery Group

The Rail Delivery Group (RDG) is a membership body that brings together the companies that run the British railway network with the goal of delivering a better railway for the country and its communities¹.

The rail industry has long been committed to providing cleaner, low carbon transport, but the importance of low carbon transport has now "never been clearer"², with decarbonising Britain's railway network being key to achieving the country's net zero commitments. Transport is now the highest-emitting sector of the economy, and therefore a priority for decarbonisation, and rail is a central part of the solution.

As the body that brings together all interested parties in the UK's rail network, RDG is working with member organisations to advance decarbonisation by encouraging a shift towards rail from higher-emission modes of transport, as well as taking steps to reduce the emissions and other environmental impacts of the rail industry³ (such as local impacts of stations⁴). Alongside this, RDG is seeking to understand and reduce its own emissions, and has already taken steps to reduce the environmental impact of their operations, including recycling and energy-efficiency initiatives⁵.

The Climate Pledge

As part of RDG's efforts to reduce the impacts of its own operations, RDG joined the Climate Pledge on 21st April 2021. The Climate Pledge calls on companies to be net zero across their businesses by 2040, committing signatories to three principal areas of action:

1. Regular reporting - measure and report greenhouse gas emissions (GHG) on a regular basis across Scopes 1, 2 and 3. The Climate Pledge asks companies to refer to best practices within their industry, e.g. the Greenhouse Gas (GHG) Protocol, which is one of the Climate Pledge's recommended methods.

¹ Rail Delivery Group, 2020. *About Us*. Available: <https://www.raildeliverygroup.com/about-us.html>.

² Rail Delivery Group, 2021. *Catalysing a green recovery*. Available: <https://www.raildeliverygroup.com/about-us/publications/12853-2021-10-catalysing-a-green-recovery/file.html>.

³ The Climate Pledge. *Signatories*. Available: <https://www.theclimatepledge.com/us/en/Signatories/rail-delivery-group>.

⁴ Rail Delivery Group, 2021, *Sustainable Stations Best Practice Guide*. Available: <https://www.raildeliverygroup.com/about-us/publications/12802-2021-04-sustainable-stations-best-practice-guide/file.html>

⁵ The Climate Pledge, 2022. Available: <https://www.theclimatepledge.com/us/en/the-pledge>.

2. Carbon elimination - implement decarbonisation strategies in line with the Paris Agreement through real business changes and innovations, including efficiency improvements, renewable energy, materials reductions, and other carbon emission elimination strategies.
3. Credible offsets - neutralise any remaining emissions with additional, quantifiable, real, permanent, and socially-beneficial offsets to achieve net zero annual carbon emissions by 2040⁶.

RDG's first year commitment

As part of the Climate Pledge, RDG commit to comprehensively reviewing and reporting of the organisation's greenhouse gas emissions, accounting for all emissions associated with RDG's operations, including those the organisation can control, Scopes 1 and 2, as well as emissions the organisation can influence, Scope 3. This is a vital first step to identifying the largest emission sources and therefore where future efforts should be focused. This process will set a baseline for future greenhouse gas emissions to be measured against.

2. Methodology

The methodology used to calculate RDG's greenhouse gas emissions follows the World Resources Institute GHG Protocol - A Corporate Accounting and Reporting Standard, Revised Edition⁷ ("the Protocol") and is guided by the Protocol's key principles of relevance, completeness, consistency, transparency and accuracy. RDG were supported to do this by energy and sustainability consulting company ClearLead Consulting Ltd.

An operational control approach has been taken, meaning that the inventory covers emissions from all operations that are under the group's operational control. Emissions are reported in line with the company's financial year, the baseline year being RDG's 2020/2021 financial year. UK Government emissions factors have been applied where available; electricity emission factors are location based.

To ensure full transparency, calculation methodologies, assumptions and any alternative emission factors have been disclosed within a detailed methodology document, 'RDG Extended Report_Carbon Footprint Methodology FY20_21'⁸, as well as the 'RDG Carbon Inventory FY20_21' spreadsheet⁹.

This approach is in line with the UK's Competition and Markets Authority (CMA) Green Claims Code¹⁰, which ensures green claims are truthful, accurate, clear and unambiguous, do not hide or omit important information, consider the full life cycle of a product or service and are substantiated.

3. RDG's Baseline Carbon footprint

Greenhouse gas emissions summary

A summary of RDG's GHG emissions for the 12 month period from 1st April 2020 - 31st March 2021 is shown in Table 1. Absolute emissions (total emissions) are summarised as well as two intensity ratios. Intensity ratios provide a measure of greenhouse gas emissions in proportion to a measure of activity and are useful for annual comparison.

⁶ The Climate Pledge. *The Pledge*. Available: <https://www.theclimatepledge.com/us/en/the-pledge>.

⁷ WRI GHG Protocol Corporate Standard. Available: <https://ghgprotocol.org/corporate-standard>.

⁸ ClearLead Consulting Ltd., 2022. *RDG Extended Report: Carbon Footprint Methodology FY20/21*. Available on request.

⁹ ClearLead Consulting Ltd. 2022. *RDG Carbon Inventory FY20/21*. Available on request.

¹⁰ HM Government, 2021. *Green Claims Code*. Available: <https://greenclaims.campaign.gov.uk/>.

Summary table	
Absolute GHG emissions breakdown (tCO ₂ e) per financial year	
Scope	FY20/21
Scope 1	0.0
Scope 2	113.0
Scope 3	21,465.2
Total (Scope 1 and 2)	113.0
Total (Scopes 1, 2, and 3)	21,465.2
% change (year-on-year)	N/A
GHG emission intensity (tCO ₂ e) per financial year	
Budget (£)	53,500,000.00
Carbon intensity (tCO₂e per £ million budget)	403.3
% change	N/A
Average FTEs	308.0
Carbon intensity (tCO₂e per FTE)	70.1
% change (year-on-year)	N/A

Table 1: RDG GHG emissions summary (FY20/21).

RDG's baseline impact

As illustrated in Figure 1, 99% of RDG's GHG emissions fall within Scope 3. The remaining 1% of emissions are Scope 2 emissions from electricity and heat supplied through RDG's landlord.

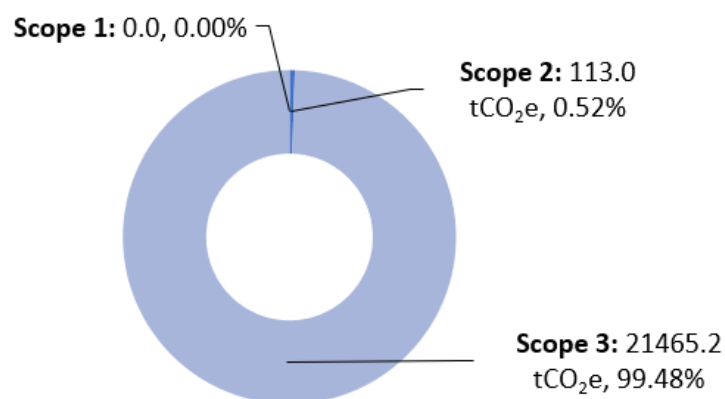


Figure 1: RDG's GHG emissions by scope (FY20/21).

Scope 1

Scope 1 emissions involve the direct GHG emissions that are released as a result of operations that are controlled or owned by an organisation. There are three major subcategories within Scope 1: stationary combustion (the combustion of fuel within machinery or equipment such as boilers), mobile

combustion (the combustion of fuels due to the operation of vehicles owned or leased), and fugitive emissions (emissions from refrigeration systems)¹¹. There are no Scope 1 emissions associated with RDG’s operations as RDG did not operate or maintain any heating or cooling plant and had no company-owned vehicles in the baseline year. Fugitive emissions from refrigerants used in cooling plant have been accounted for in Scope 3 due to RDG’s indirect control.

Scope 2

Scope 2 emissions are caused by the indirect release of GHG emissions that are derived from the purchase of heat, electricity, steam, and cooling. RDG’s Scope 2 emissions make up 1% of overall GHG emissions: 76.4 tCO₂e are from purchased electricity and 36.6 tCO₂e are from purchased heat, both of which were supplied by RDG’s landlord at its office premises located at 200 Aldersgate Street, London.

Scope 3

Scope 3 emissions are all indirect emissions (not included in Scope 2) that occur in RDG’s value chain, including both upstream and downstream emissions¹². Whilst RDG’s operations are predominantly office-based, the reach of the organisation’s operations, and therefore the Scope 3 emissions, is large. A breakdown of RDG’s Scope 3 emissions, as per the GHG Protocol’s fifteen Scope 3 categories is shown in Figure 2. All applicable categories were included in the baseline carbon inventory for completeness and to assess the materiality of emission sources for future GHG emission calculations.

Within Scope 3, the purchase of goods and services (S3-1) accounts for 20,893.3 tCO₂e of RDG’s overall footprint and is therefore by far the largest emission source. Figure 3 shows a further breakdown of emissions within Scope 3-1 Purchased goods and services. IT services account for 8175.5 tCO₂e of emissions within this category and professional services a further 4562.0 tCO₂e.

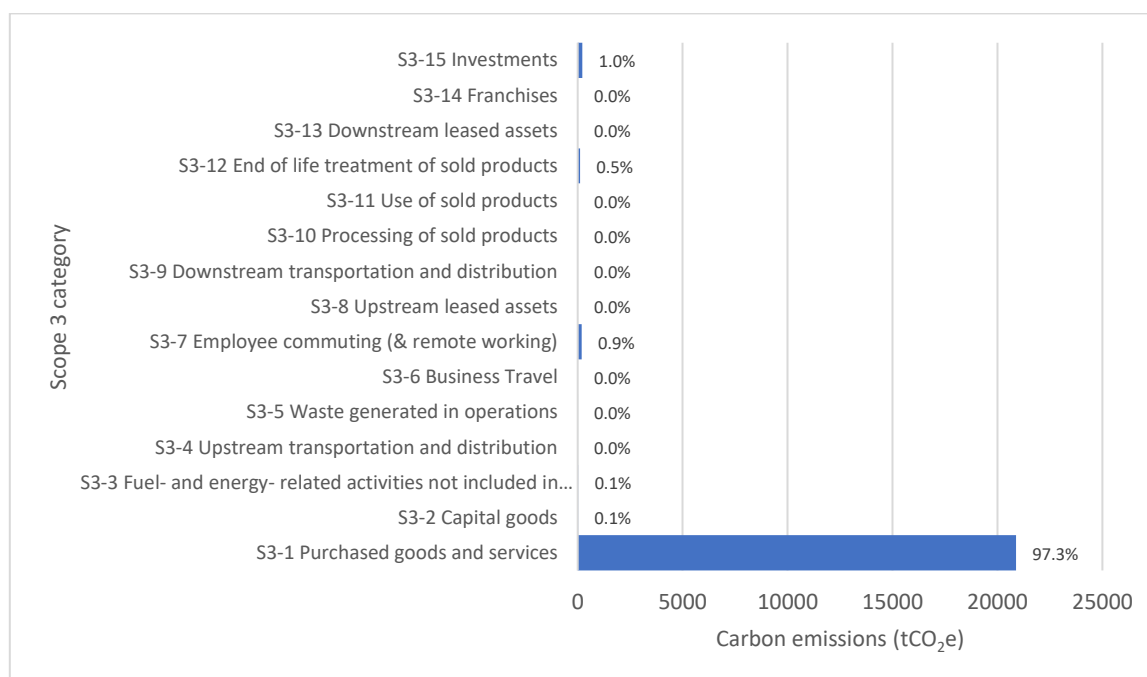


Figure 2: RDG’s GHG Scope 3 emissions.

¹¹ US EPA Scope 1 and Scope 2 Inventory Guidance. Available: <https://www.epa.gov/climateleadership/scope-1-and-scope-2-inventory-guidance>.

¹² WRI GHG Protocol. FAQ. Available: https://ghgprotocol.org/sites/default/files/standards_supporting/FAQ.pdf.

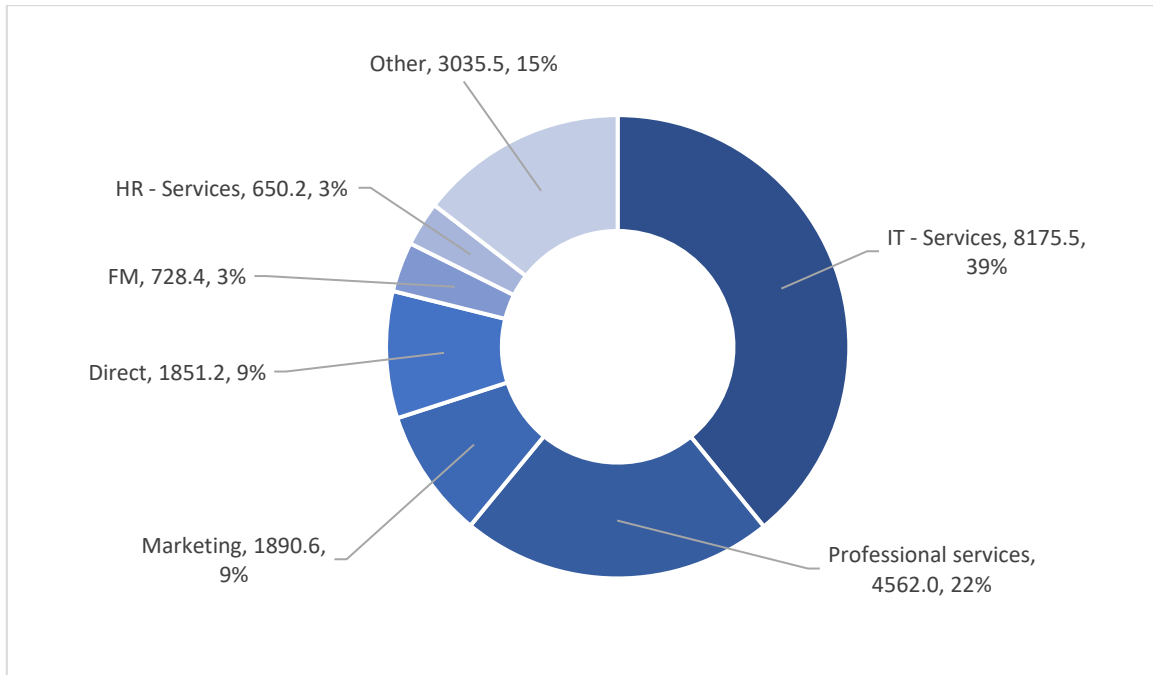


Figure 3: Breakdown of RDG's GHG emissions (tCO₂e) within S3-1 Purchased goods and services.

The GHG emissions associated with RDG's investments (S3-15), which includes pension payments, is the second largest category within Scope 3, accounting for 222.4 tCO₂e. Employee commuting and remote working (S3-7) and end of life treatment of sold products (S3-12) are also significant emission sources accounting for 188.0 tCO₂e and 108.0 tCO₂e respectively.

Emissions Intensity Ratio

In order to compare RDG's GHG emissions annually, two intensity ratios have been calculated, as shown in Table 2. The carbon emissions per British Pound of budget and per full-time equivalent (FTE) have been calculated.

Total carbon footprint and intensity ratio		
Carbon intensity (intensity ratio)	Carbon emissions per £ million budget	403.3 tCO ₂ e
	Carbon emissions per FTE	70.1 tCO ₂ e

Table 2: RDG Carbon intensity ratio.

4. Next Steps - Emissions Reduction

Having quantified Scope 1, 2 and 3 emissions, RDG's next step will be to identify opportunities to make emissions reductions. RDG has commissioned an energy audit which will cover the energy used in the London office premises and energy used in RDG's transport operations, which together make up its Scope 2 and some of its Scope 3 emissions. The energy audit will help RDG to identify measures to reduce energy use and carbon emission from these sources. With Scope 3 emissions from purchased goods and services forming the majority of its emissions, RDG will also need to focus on this area through engaging with its supply chain, firstly to better understand and quantify these emissions, then to seek to make reductions where possible through supplier engagement and considering carbon emissions as part of its future procurement strategy and purchasing decisions.

5. Limitations and Recommendations

As with all GHG emissions inventories, there are limitations to the methodology applied and certain assumptions have needed to be made, in the absence of suitable quantified data. A summary of key limitations and recommendations for improvement in subsequent years is shown below (a full review of these for each scope category can be found in the 'RDG Extended Report_Carbon Footprint Methodology FY20_21⁸):

Spend based emission calculations

- **Limitation:** Emissions were based on the best data available at the time of calculation. Primary data was provided for emission categories where available. In some instances, primary data was based on spend in place of weight/volumes, which reduces the accuracy of emission calculations.
- **Recommendation:** It is recommended that emissions from purchased goods and services are based on quantity of goods/services in place of spend, however, this approach taken in this baseline year is considered appropriate to assess the scale.

Assumptions/benchmarks used in place of some primary data source

- **Limitation:** Neither primary or spend data was available for some 'in-scope' categories. In these instances, calculations are based on benchmarked data or assumptions. These assumptions have been noted within the extended methodology report⁸ and within the GHG Inventory⁹.
- **Recommendation:** Obtain primary data for scope categories where assumptions or benchmarks have been used.

Emissions are based on the best available emission factors.

- **Limitation:** There is a lack of specific up to date emission factors for some Scope 3 categories, particularly Scope 3-1 Purchased goods and services.
- **Recommendation:** Continue to work with suppliers to obtain supplier specific emission factors to improve the accuracy of emission calculations within this category.

It is acknowledged that the calculation methodology and data sources will evolve in the future as improved data becomes available. If data quality improves significantly there may be a need to re-baseline.

The above limitations will not have a material impact on the overall inventory. Where assumptions have been made, a 'worst case scenario' has been chosen, to ensure emissions are not underestimated.