



# FRP's Strategic Carbon Reduction Plan

Our roadmap for achieving net zero in line with PPN 06/21

**Supplier name:** FRP Advisory Group plc & its subsidiaries (FRP)

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**FRP**

[frpadvisory.com](https://frpadvisory.com)

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# Introduction

# Commitment to becoming Carbon Neutral

FRP Advisory Group plc and its subsidiaries are committed to becoming Carbon Neutral in regards with its Scope 1, Scope 2 emissions by 2030 and reduce our Scope 3 emissions 30% by 2030. We are also committed to become carbon neutral before 2050 in line with the government goal to reach Net Zero by 2050. FRP is committed to improving the accuracy of its Scope 3 emissions inventory using the Corporate Value Chain Standard and report in all 15 categories of Scope 3 emissions when applicable to our company activities.

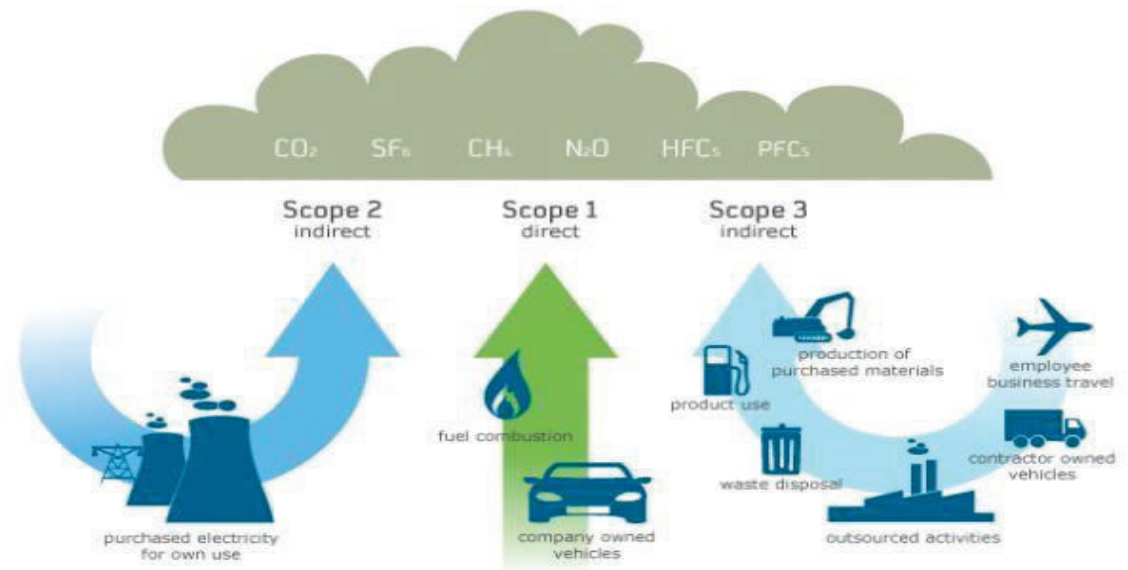
All emissions reductions at FRP will be primarily achieved through carbon reduction projects. Offsetting carbon emissions will only be considered in cases of unavoidable or residual emissions. FRP has also established emission reduction targets for FY2025 besides 2030. The targets will be evaluated annually using emission reduction intensity KPIs to reflect the corresponding growth of the company. These KPIs will be integrated into our reporting system, and the required processes will be initiated to ensure annual targets are met.



## About Our Inventory

FRP's Strategic Carbon Reduction Plan was developed in response to a comprehensive inventory report based on ISO 14064 and the GHG Protocol. The inventory provides a detailed assessment of the organisation's carbon footprint, measuring Scope 1 - direct emissions, Scope 2 - indirect emissions from energy consumption, and Scope 3 - other indirect emissions across the value chain.

The following calculations of emissions reductions opted for a conservative approach by utilising the lower end of the estimated range. This cautious methodology ensures that the assessments remain robust and credible, accounting for variability in real-world applications.



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# Emission Categories

# ISO 14064-1 Categories

In line with ISO 14064-1 standards, our inventory report includes clear reporting boundaries. These boundaries encompass all relevant emissions and removals of GHGs and are categorised as described in Table 1.

ISO Categories		Inclusion
Category 1	Direct GHG emissions and removals	✓
Category 2	Indirect GHG emissions from imported energy	✓
Category 3	Indirect GHG emissions from transportation	✓
Category 4	Indirect GHG emissions from products used by an organisation	
Category 5	Indirect GHG emissions associated with the use of products from the organisation	
Category 6	Indirect GHG emissions from other sources	✓

# GHG Protocol Emission Categories

Currently, we measure all of our Scope 1 and Scope 2 emissions following the GHG protocol and we measure a subset of Scope 3 emissions following the Corporate Value Chain Scope 3 Standard. Calculations on Scope 3 emissions for this year were calculated based on the Spend-based methodology.

## Scope 1 – Direct GHG Emissions

- Emissions from operations owned or controlled by the Company
- Same as Category 1 as defined under ISO 14064-1
  - Company vehicles
  - Stationary Combustion
  - Process emissions
  - Fugitive emissions
  - Land use emissions



## Scope 2 – Indirect GHG Emissions

- Purchased electricity, steam, heating and cooling for company's own use
- Same as Category 2 as defined under ISO 14064-1



## Scope 3 – Other Indirect GHG Emissions

- Any other indirect emissions not owned or controlled by the Company
- Emissions in the Supply/ Value Chain associated with the company's upstream and downstream operations
- Categories 3,4,5 & 6 as defined under ISO 14064-1

### Upstream

1. Purchased Goods And Services
2. Capital Goods
3. Fuel & Energy-related Activities
4. Upstream Transportation & Distribution
5. Waste Generated In Operations
6. Business Travel
7. Employee Commuting
8. Upstream Leased Assets

### Downstream

1. Downstream Transportation & Distribution
2. Processing Of Sold Products
3. Use of Sold Products
4. End-of-life Treatment Of Sold Products
5. Downstream Leased Assets
6. Franchises
7. Investments





# Baseline Emissions Footprint



# Baseline Emissions

## What are Baseline Emissions?

Baseline emissions refer to the amount of greenhouse gases (GHGs) emitted during a specific, reference period. This reference period serves as a benchmark against which future emissions reductions or increases can be measured. Establishing a baseline is crucial for assessing progress in GHG reduction initiatives and for setting realistic and achievable targets.

## Baseline Adjustment

FRP has historically used 2019 as the baseline year for greenhouse gas (GHG) emissions reporting, as this was the first year the company began quantifying its emissions. However, FRP is now adjusting its baseline to 2023 to better reflect significant organisational growth, improvements in emissions measurement methodologies, and the early achievement of several GHG reduction targets.

## Rationale for Baseline Adjustment

Since 2019, the company has expanded considerably in terms of operational scope and capacity, making the 2019 baseline less representative of its current emissions profile. In addition, FRP has made substantial improvements in its emissions quantification processes, adopting more accurate and comprehensive measurement tools. This ensures that the emissions data is of higher quality and more reflective of its present and future operations.

Furthermore, several of FRP's GHG reduction targets have been achieved ahead of schedule. Notably, the company's Scope 1 emissions reduction target of 20% by 2025, set against the 2019 baseline, was achieved two years earlier, in 2023. This early success highlights FRP's commitment to climate action and the effectiveness of its emissions reduction strategies.

**The 20% reduction target (based on the 2019 baseline) was achieved in 2023, two years ahead of the 2025 target year.**

By adopting 2023 as the new baseline year, the company aims to establish a more current and accurate reference point for tracking future GHG reductions. This shift allows FRP to set more ambitious targets, aligning with the evolving scale of its operations and the ongoing improvements in its sustainability practices.

## Conclusion

FRP remains committed to transparency and continuous improvement in its GHG management practices. The adjustment of the baseline year to 2023 reflects the company's growth, enhanced measurement practices, and success in achieving early emissions reductions. Moving forward, FRP will continue to use this updated baseline to drive further reductions in GHG emissions and to support its long-term sustainability objectives.

# Baseline Emissions

## Historic 2019 Baseline Emissions

Emission Category	Emissions (tCO <sub>2</sub> e)	Emissions Per Employee
<b>Scope 1</b> (Category1)	10	0.03
<b>Scope 2</b> (Category 2)	100	0.32
<b>Scope 3</b> (Includes Categories 1- 14 )	2688	8.64
<b>Total Emissions</b>	<b>2798</b>	<b>9</b>

## New 2023 Baseline Emissions

Emission Category	Emissions (tCO <sub>2</sub> e)	Emissions Per Employee
<b>Scope 1</b> (Category1)	8.9	0.02
<b>Scope 2</b> (Category 2)	5.1	0.01
<b>Scope 3</b> (Includes Categories 1- 14 )	4618.5	8.38
<b>Total Emissions</b>	<b>4632.5</b>	<b>8.41</b>

# Current Emissions Reporting

# GHG Emissions Inventory

Due to limitations on actual data, it should be noted that most of the commuting and working from home calculations rest on reasonable assumptions. We will refine these assumptions and improve the methodology moving forwards.

Emission Category	FY24 Emissions (tCO <sub>2</sub> e)	tCO <sub>2</sub> e Per Employee
<b>Scope 1 (Category1)</b>	<b>5.63</b>	<b>0.01</b>
Vehicle Fleet	0.75	0
Heating & Cooling	4.87	0.01
<b>Scope 2 (Category 2)</b>	<b>9.63</b>	<b>0.01</b>
Electricity	9.63	0.01
<b>Scope 3</b>	<b>5027.1</b>	<b>7.65</b>
<i>Upstream</i>		
Cat 1: Purchased goods and services	3612.71	6.74
Cat 2: Capital goods		Reported in the PG&S
Cat 3: Fuel and energy related activities		Not Material to FRP
Cat 4: Upstream transport and distribution		Not Material to FRP
Cat 5: Waste generated in operations*	301.03	0.46
Cat 6: Business travel	296.69	0.45
Cat 7: Employee Commuting and teleworking	816.88	1.24
Cat 8: Upstream leased assets		Not Material to FRP
<i>Downstream</i>		Not Material to FRP
<b>Total Emissions</b>	<b>5042.36</b>	<b>7.67</b>

\*Cat 5: We accounted only for printing paper waste

# Emissions Breakdown & Initiatives for Achieving Net-Zero

# Scope 1 Emissions

As part of the company's commitment to sustainability and its overall carbon reduction strategy, a goal has been set to achieve zero Scope 1 emissions by 2030. Scope 1 emissions, which originate from direct sources under the company's control, predominantly arise from two key areas: company vehicle usage and the operation of heating and cooling systems in select locations.

In line with the company's comprehensive strategy to lower Scope 1 emissions and attain net-zero emissions by 2030, the following key policies have been implemented:

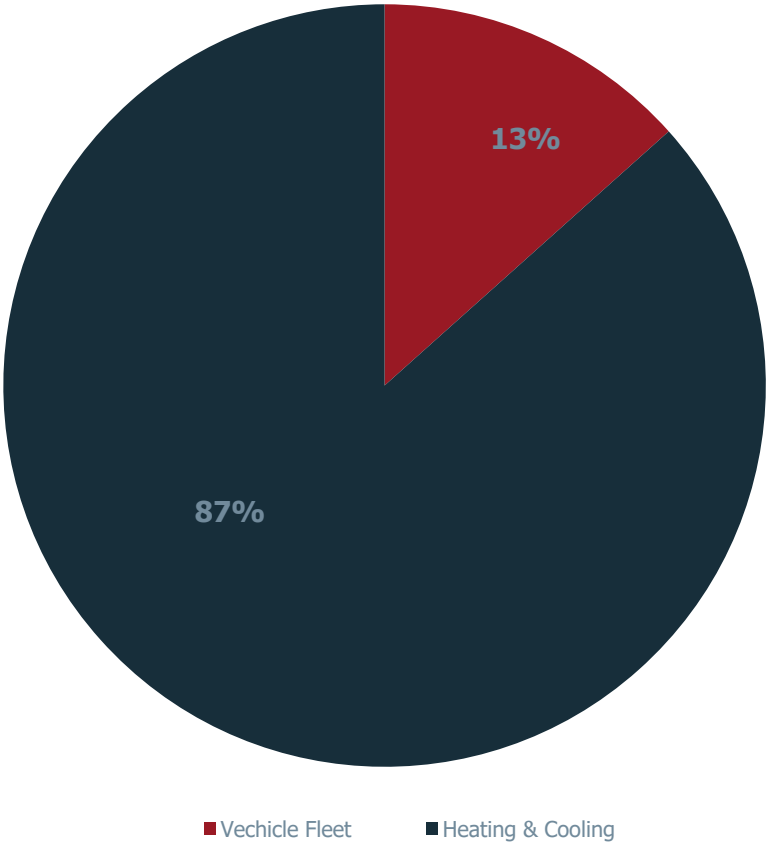
## 1. Low Emission Vehicles

- > The company's environmental policy has been updated to prioritize low emission vehicles. This decision underscores the commitment to phasing out internal combustion engine vehicles and transitioning the fleet to more sustainable alternatives.

## 2. Energy-Efficient Building Leases

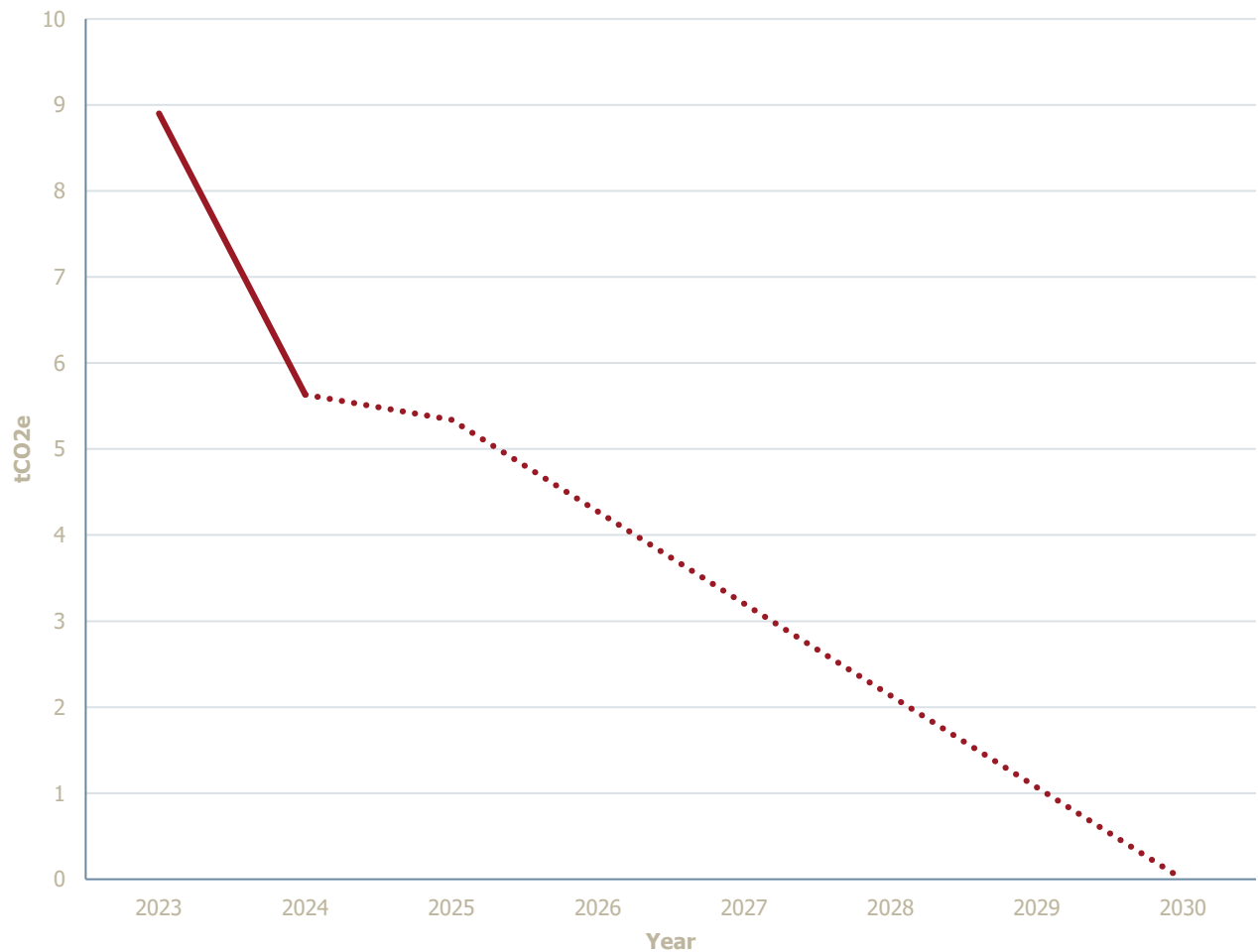
- > The environmental policy has also been amended to prioritise sustainability in facility operations. Newly leased buildings will be required to have energy-efficient systems in place

Scope 1 Emissions (tCO2e) Distribution



# Scope 1 Reduction Target

Scope 1 Estimated Reduction in tCO2e Based on Reduction Targets



## Impact of Initiatives:

Implementing the updated environmental policies and initiatives is expected to significantly impact Scope 1 emissions, helping the company achieve its ambitious targets of reducing emissions by 40% by 2025 and 100% by 2030. Below are the key impacts of these strategies:

- 1. Enhanced Energy Efficiency in Buildings:** Ensuring that newly leased buildings are equipped with energy efficient heating systems.
- 2. Regulatory Compliance and Future-Proofing:** Proactive emissions reduction strategies will help the company stay ahead of potential regulations, mitigating risks associated with compliance and carbon pricing.
- 3. A proactive approach** to reduce Scope 1 emissions to zero by 2030 is in place, although Scope 1 emissions are not material to the company. We prioritize reducing emissions that are material to our operations, and any excess Scope 1 emissions will be fully offset."



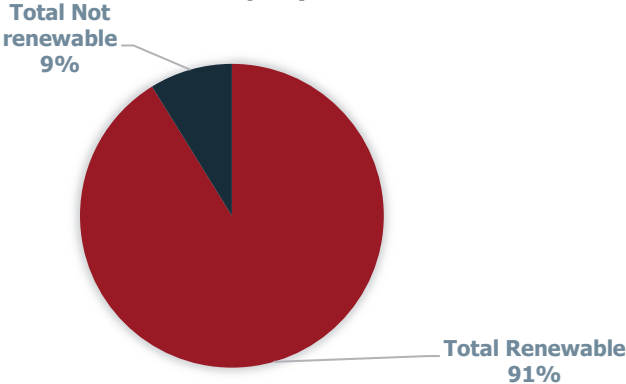
## Scope 2 Emissions

At FRP, Scope 2 emissions, which are indirect greenhouse gas emissions arising from the consumption of purchased electricity, are primarily generated from electricity used in offices where renewable energy contracts are not in place, particularly in situations where the company does not have control over these contracts. Nevertheless, FRP remains dedicated to addressing these emissions as part of its wider sustainability goals.

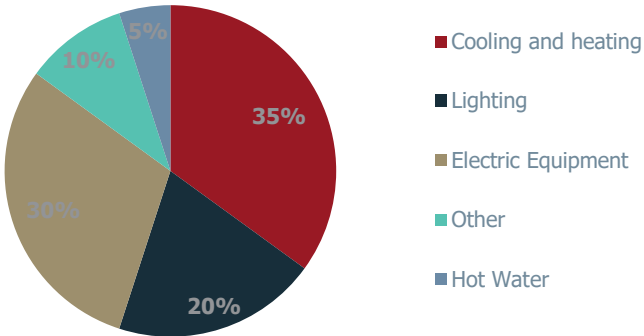
The Company recognises that merely achieving carbon neutrality through renewable energy contracts is insufficient. Instead, FRP prioritises reducing energy consumption as a more meaningful way to lower its carbon footprint. This proactive approach includes implementing energy efficiency measures across its offices, such as upgrading to LED lighting, optimising heating, ventilation, and air conditioning (HVAC) systems, and promoting energy-saving behaviours among employees. The company also regularly monitors and assesses its energy usage, identifying opportunities for further reductions, thereby decreasing reliance on non-renewable energy sources.

In cases where renewable energy contracts are beyond its direct control, FRP actively engages with landlords and energy suppliers to explore future improvements. By aligning its operations with the principles of environmental responsibility, the firm not only seeks to reduce emissions today but also aims to foster long-term sustainability by minimising the energy intensity of its operations. This approach underscores FRP’s commitment to going beyond carbon neutrality and establishing a more sustainable business model focused on energy efficiency and emissions reduction at its core.

Proportion of Renewable Energy Supplied to the Company



Typical Building Consumption Breakdown



Source: [Building Energy Consumption Breakdown](#)

## Initiatives – Policies

### Initiatives – Policies In Place:

#### 1. Sourcing 100% Renewable Energy for Controlled Buildings:

- › FRP ensures that all buildings under its direct control are powered exclusively by renewable energy sources, aligning with its commitment to sustainability and reducing carbon emissions.

#### 2. Sourcing 91% Renewable Energy for All Operated Buildings:

- › Across the full portfolio of buildings it operates, FRP sources 91% of its energy from renewable contracts, with ongoing efforts to increase this percentage further, even in locations where energy contracts are not fully controlled by the company.

#### 3. Energy Efficiency Enhancements in Buildings and Equipment:

- › FRP continuously improves the energy efficiency of its offices by upgrading to LED lighting, improving insulation, and installing energy-efficient appliances and HVAC systems, significantly reducing both electricity and heating demands.

#### 4. Advanced Energy Monitoring Systems:

- › The company has implemented systems to monitor energy usage per office, employee, and square meter, providing detailed insights into consumption patterns and helping identify areas for further energy savings.

#### 5. Energy Savings Opportunity Scheme (ESOS) Audit:

- › FRP has undergone an audit as part of the Energy Savings Opportunity Scheme (ESOS) and is committed to implementing relevant recommendations from the lead assessor to further enhance its energy efficiency across all operations.

### Initiatives – Policies Under Implementation:

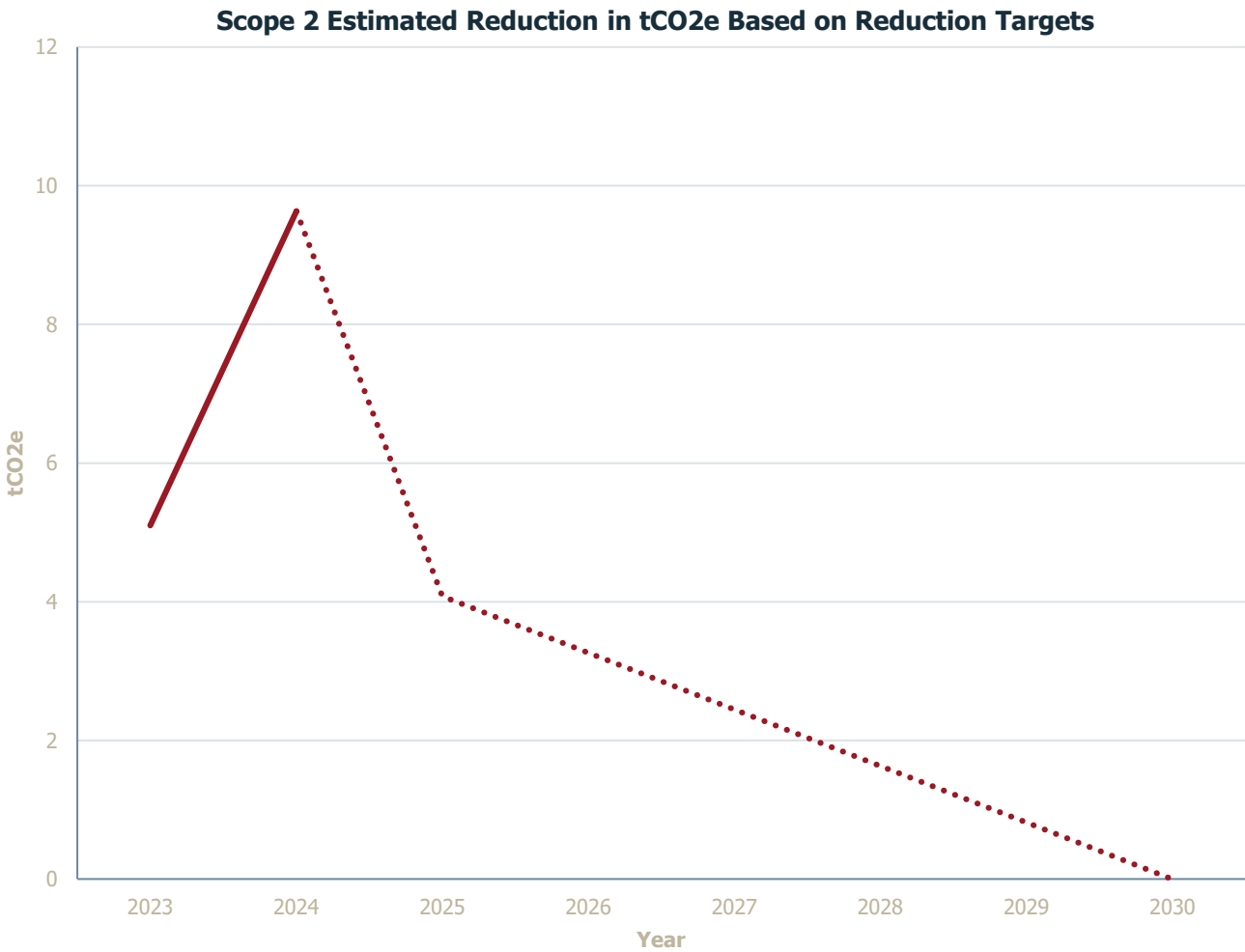
#### 6. Employee Education on Energy Conservation:

- › FRP is actively educating employees on energy-saving practices, such as turning off unused equipment, optimising heating and cooling, and utilising natural light. These efforts aim to foster energy-conscious behaviours that contribute to reducing overall energy consumption in the workplace.

#### 7. Installation of Solar Panels:

- › Where feasible and under FRP's control, solar panels are being installed to generate renewable energy on-site. This initiative reduces reliance on external energy providers and further decreases the company's carbon footprint by sourcing clean energy directly.

# Scope 2 Reduction Target



## Impact of Initiatives:

- 1. Reduce Consumption:** Encouraging energy-saving behaviours will drive immediate reductions in energy use, contributing to the 20% reduction target by 2025 and supporting the longer-term goal of 100% by 2030.
- 2. Energy Efficiency Upgrades:** Improving lighting, insulation, and appliances cuts energy demand, helping reach the 20% reduction by 2025, with ongoing upgrades supporting the 2030 goal.
- 3. Continues Monitoring and Improvement:** Tracking and optimising energy use enables FRP to maintain and improve efficiency, ensuring consistent progress toward both reduction targets.

Focusing along those strategies FRP aims to create a strong foundation for meeting its sustainability goals.

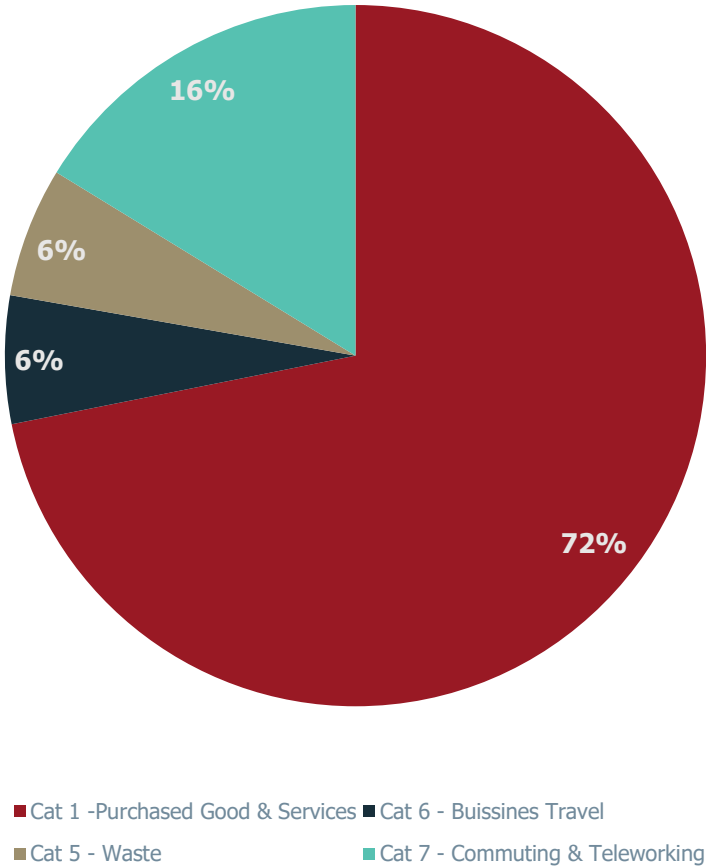
# Scope 3 Emissions

FRP acknowledges that 99.7% of its emissions are derived from Scope 3, which includes all indirect emissions from activities not directly controlled by the company, such as those from suppliers, business travel, and employee commuting. For FY 2024 (May 2023 to April 2024), the total emissions have increased compared to the previous year, and this rise can be attributed to several key factors:

- **Increased Operations:** FRP’s business operations have expanded significantly since FY 2023, resulting in a higher volume of activities that generate emissions. This growth reflects the company's success but has naturally led to an increase in associated emissions.
- **Improved Scope 3 Emissions Calculation:** FRP has refined its methodology for calculating Scope 3 emissions, now including more categories than in previous years. This comprehensive approach provides a clearer and more accurate representation of the company’s environmental impact, but it also means that more sources of emissions are now accounted for, contributing to the higher reported figures.
- **Growth in Volume of Operations and Workforce:** Alongside operational growth, FRP has also seen an increase in its workforce. A larger number of employees typically results in higher emissions from activities such as commuting, travel, and office energy use. This increase in business scale and human resources is a contributing factor to the rise in overall emissions.

By understanding these factors, FRP is better positioned to address and manage its emissions moving forward, focusing on reducing its Scope 3 footprint as part of its overall sustainability strategy.

Scope 3 Emissions (tCO2e) Distribution



# Initiatives - Policies

## Initiatives – Policies In Place:

### 1. Comprehensive Carbon Emissions Inventory:

- FRP has produced a full carbon emissions inventory in accordance with the GHG Protocol, covering all applicable categories of Scope 3 emissions the company measures. This ensures a detailed and transparent understanding of the company's indirect emissions across the value chain.

### 2. Cycle to Work Scheme:

- FRP has introduced a Cycle to Work scheme, encouraging employees to choose cycling as an environmentally friendly commuting option, reducing emissions from transport and promoting a healthier lifestyle.

### 3. Electric Car Scheme:

- To further reduce emissions from employee commuting, FRP has implemented an Electric Car Scheme, offering employees incentives to switch to electric vehicles, thereby cutting down on Scope 3 emissions related to transportation.

### 4. Printing Reduction Champions Challenge:

- FRP plans to launch the 'Printing Reduction Champions' challenge, an internal initiative designed to reduce waste from printing and paper use. Employees are encouraged to adopt paperless workflows and minimise unnecessary printing, helping to reduce both waste and energy consumption.

### 5. Environmental Awareness Campaign

- As part of its 2025 targets, FRP will launch a quarterly Carbon Progress Awareness Campaign to regularly communicate emissions reduction progress to employees. This initiative will raise awareness and foster engagement by sharing updates on carbon reduction goals, showcasing successful projects, and encouraging active participation in sustainability efforts.

## Initiatives – Policies Under Implementation:

### 1. Business Travel Policy Review:

- FRP is revising its travel policy to encourage more sustainable transport options and prioritise hotels with net-zero goals for employee stays.

### 2. Supplier Carbon Footprint Review:

- The company is assessing suppliers based on their carbon footprint, sourcing lower-carbon alternatives where possible, and updating its Supplier Code of Conduct to include ESG and net-zero goals.

### 3. Supplier Assessment for Net-Zero Goals:

- FRP is developing a screening to identify high polluting suppliers/ contractors ensuring alignment with the company's sustainability targets.

### 4. Support for Suppliers:

- FRP is offering guidance and mentoring to help suppliers, especially smaller businesses, meet its carbon reduction requirements.

### 5. Enhanced Supplier Engagement:

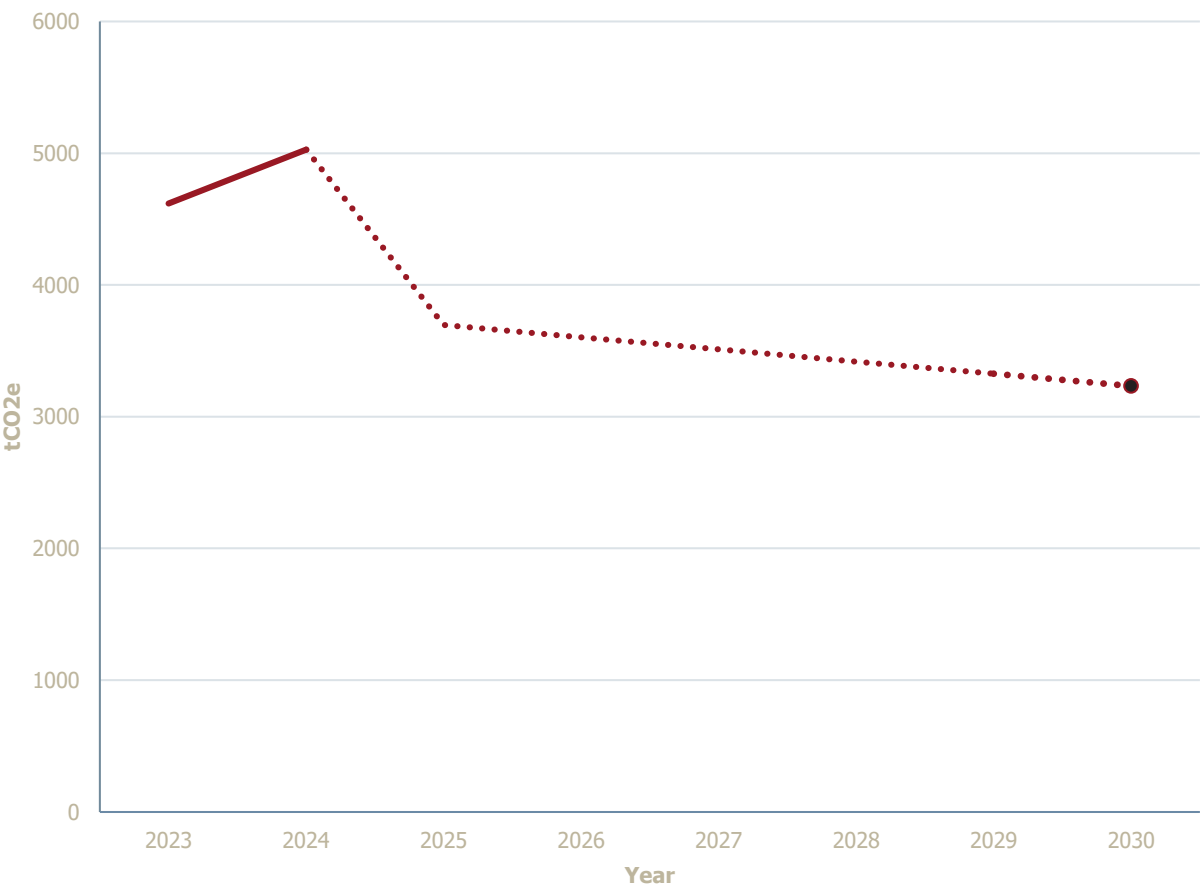
- FRP is deepening collaboration with suppliers to improve their sustainability practices and prioritise those with strong environmental performance.

### 6. Employee Education on Waste Practices:

- The company is educating employees on sustainable waste practices to reduce waste and improve resource efficiency.

# Scope 3 Reduction Target

Scope 3 Estimated Reduction in tCO2e Based on Reduction Targets



## Impact of Initiatives:

### In Place:

- 1. Comprehensive Carbon Inventory:** Provides complete visibility on emissions, crucial for achieving the 20% reduction by 2025 and 30% by 2030.
- 2. Cycle to Work and Electric Car Schemes:** Directly reduce commuting and travel-related emissions, supporting both short- and long-term reduction goals.
- 3. Printing Reduction Challenge:** Cuts waste and energy usage, contributing incrementally to meeting both targets.

### Under Implementation:

- 1. Business Travel Policy Review:** Encourages sustainable travel and net-zero hotels, significantly lowering travel-related emissions.
- 2. Supplier Engagement:** Reviewing and sourcing low-carbon alternatives from suppliers, along with setting net-zero requirements, will have a major impact on Scope 3 emissions, driving progress toward both 2025 and 2030 goals.
- 3. Supplier Support:** Assisting suppliers in meeting emissions standards boosts supply chain sustainability, essential for hitting reduction targets.

These combined initiatives will drive FRP toward its 20% reduction by 2025 and 30% by 2030 targets, tackling emissions across commuting, travel, and the supply chain.

# Summary

# Summary

## Growth and Sustainability Progress

As a growing business, FRP has experienced an increase in revenue over the past year, which reflects the continued expansion of its operations. While this growth has led to an increase in the company's total carbon footprint since FY2023, many of the measures implemented to reduce emissions are still in the process of being fully realised. Despite this, FRP has successfully reduced emissions per employee compared to the previous baseline year of 2019. Emissions per employee by 6.5% compared to the baseline year of 2019.

## Updating the Baseline Year

FRP is also updating its baseline year from 2019 to 2023 to better represent the company's current operations and improved emissions measurement processes. Although 2019 was the first year FRP began tracking emissions, the company has since evolved significantly. The new baseline will more accurately reflect FRP's emissions profile and the scale of its operations.

## Scope 1 Emissions Reduction Achievement

FRP is pleased to report that it achieved its Scope 1 emissions reduction target of 20% (relative to the 2019 baseline) by 2023—two years earlier than originally anticipated. This achievement underscores FRP's commitment to reducing GHG emissions and sets the stage for further progress.

## Revised GHG Emissions Reduction Targets

To align with the company's growth and ongoing sustainability initiatives, FRP has set new, more ambitious GHG reduction targets. These targets are based on the new 2023 baseline, reflecting the company's commitment to driving continuous improvements in emissions reductions across its operations.

FRP will continue to closely monitor its progress and implement the necessary measures to meet these revised targets. The company's focus remains on both sustainability and growth, ensuring that it effectively balances the expansion of its business with meaningful reductions in its carbon footprint.

Emission KPIs	FY2024	Per Employee	Revised Reduction Target 2025	Revised Reduction Target 2030	Estimated Reduction by 2025
Scope 1	5.63	0.01	40%	100%	3.55
Scope 2	9.63	001	20%	100%	5.55
Scope 3	5027.1	7.65	20%	30%	1332.3

5,63 tCO<sub>2</sub>e

Scope 1

9.63 tCO<sub>2</sub>e

Scope 2

5027.1 tCO<sub>2</sub>e

Scope 3

5042.36 tCO<sub>2</sub>e

Total Emissions FY24



# Uncertainties

# Scope 1 Uncertainties

In calculating Scope 1 greenhouse gas (GHG) emissions for the FY2024 the company used DEFRA FY2023 emission factors. Scope 1 emissions include those from a company-owned vehicle, where accurate mileage records were maintained, and from gas consumption (in kilowatt-hours) for heating and cooling in selected office locations. Despite using accurate activity data and reputable emission factors, there are some qualitative uncertainties to consider.

## Key Sources of Uncertainty:

- 1. Vehicle Emissions:** The emissions from the company-owned vehicle were calculated using the DEFRA FY2023 emission factors for fuel combustion, based on mileage data. While the mileage data is dependable, uncertainties arise due to potential variations in vehicle performance under real-world conditions. Factors such as driving conditions (e.g., stop-and-go traffic, weather variations), driver behaviour, and vehicle maintenance can cause actual fuel consumption to differ from the standard assumptions embedded in the DEFRA factors. These factors could result in minor over- or under-estimations of emissions.
- 2. Gas Consumption for Heating and Cooling:** Gas consumption, measured in kilowatt-hours (kWh) and used for heating and cooling offices, was calculated using DEFRA FY2023 emission factors for natural gas. While meter readings provide reliable data, building-specific factors introduce uncertainties. Variations in insulation, heating system efficiency, and HVAC performance can affect energy usage. Additionally, inaccuracies in metering or discrepancies in billing cycles could impact the reported consumption data. The efficiency of gas-fired systems may also fluctuate based on maintenance schedules or operational conditions, leading to variations between actual energy use and reported figures.
- 3. DEFRA FY2023 Emission Factors:** The DEFRA FY2023 emission factors are based on national averages and are reliable for GHG inventories in the UK. However, they represent average fuel and gas compositions across the

country, which may not fully capture regional differences in energy sourcing or heating system performance. For example, slight variations in gas quality or differences in heating technology could introduce small uncertainties in the emissions estimates.

## Managing and Mitigating Uncertainty:

To mitigate these uncertainties, the company has implemented the following measures:

- Accurate tracking of vehicle mileage and gas consumption through metered data and verified records.
- Conservative assumptions to account for potential inefficiencies in vehicle fuel usage and gas system performance.
- Use of the most up-to-date DEFRA FY2023 emission factors, ensuring that emissions calculations are consistent with UK best practices for GHG reporting.

Although certain uncertainties are inherent in estimating GHG emissions, particularly due to variations in system performance, driving behaviour, and fuel characteristics, these are carefully managed and do not significantly impact the accuracy of the company's Scope 1 emissions report. This approach aligns with the principles of transparency, accuracy, and continual improvement outlined in ISO 14064.

## Scope 2 Uncertainties

For the FY2024, FRP's Scope 2 greenhouse gas (GHG) emissions were calculated based on the electricity consumption across its office locations. The associated emissions were estimated using DEFRA FY2023 emission factors for UK grid electricity. While the electricity consumption data was sourced from accurate utility bills, certain qualitative uncertainties are acknowledged.

### Key Sources of Uncertainty:

- 1. Electricity Emission Factor Variability:** The DEFRA FY2023 emission factors are based on the UK's national grid average emissions, which reflect the overall energy mix across the year. However, the carbon intensity of the grid fluctuates due to seasonal variations in renewable energy generation (such as wind and solar) and changes in fossil fuel-based power production. Since a single annual average emission factor was used, it may not fully account for monthly or daily fluctuations in carbon intensity.
- 2. Energy Usage Uncertainty:** Electricity consumption data for FRP's offices is based on meter readings from utility bills, which are generally reliable. However, minor discrepancies can arise from factors such as metering accuracy or differences between billing periods and the reporting period. Additionally, variations in office occupancy or seasonal HVAC system usage (e.g., higher air conditioning use in summer) could affect the electricity consumption profile but may not be fully reflected in the reported data.
- 3. Transmission and Distribution (T&D) Losses:** The DEFRA emission factors account for emissions from electricity generation, including average transmission and distribution losses within the grid. However, the actual T&D losses for delivering electricity to FRP's offices could vary based on their geographical locations and the efficiency of the local grid infrastructure. This introduces some uncertainty in the total emissions linked to electricity consumption.

### Managing and Mitigating Uncertainty:

To address these uncertainties:

- **Accurate Tracking:** FRP ensures precise tracking of electricity consumption through verified utility bills, using metered data to minimise discrepancies.
- **Use of DEFRA Factors:** The company has used the DEFRA FY2023 emission factors, which are reliable and up-to-date, ensuring alignment with UK national GHG reporting standards.
- **Conservative Estimates:** Although T&D losses are outside FRP's control, conservative estimates have been applied in areas of uncertainty to avoid underestimating emissions.

By using standardised and widely accepted DEFRA factors and maintaining transparent tracking of electricity consumption, FRP's Scope 2 GHG emissions estimates provide an accurate and credible reflection of its indirect emissions from electricity use. This approach aligns with ISO 14064 principles of transparency, accuracy, and continual improvement. The company remains committed to further refining its data collection processes to reduce uncertainties in future reporting cycles.

# Scope 3 Uncertainties

For the FY2024, FRP's Scope 3 GHG emissions were calculated based on multiple indirect sources, including purchased goods and services (Category 1), capital goods (Category 2), waste generated in operations (Category 5), business travel (Category 6), and employee commuting and teleworking (Category 7). These emissions were estimated using a combination of DEFRA FY2023 emission factors and financial and activity data. Although FRP employed detailed calculations, several qualitative uncertainties are acknowledged in the data and assumptions used.

## Key Sources of Uncertainty

### 1. Purchased Goods and Services, Including Capital Goods (Category 1 & 2):

Emissions from purchased goods and services, including capital goods, were calculated using an **expenditure-based method**. FRP took its total annual expenditure and applied the national UK average emissions rate, derived by comparing total UK spending to total UK CO<sub>2</sub> emissions.

#### Uncertainty Sources:

- **Generalisation of Emission Factors:** The use of national averages introduces uncertainty because the specific carbon intensity of FRP's suppliers or the goods purchased may differ from the UK average. For example, FRP's supply chain may include lower-carbon goods or services, or conversely, products sourced from higher-carbon sectors.
- **Data Aggregation:** The method assumes uniform carbon intensity across all spending categories, which could oversimplify the emissions profile, especially for capital goods, which typically have a higher carbon footprint than consumables or services.

**Mitigation:** In the future, FRP could work to gather product-specific data from key suppliers to refine the emissions estimates for high-impact categories.

### 2. Waste Generated in Operations (Category 5):

For waste emissions, FRP specifically focused on paper waste generated from printed materials. The company tracked the number of sheets of paper used, along with the weight provided by suppliers. Emissions were estimated under the assumption that all printed paper would eventually become waste, but the company recycles all paper in a closed-loop system.

#### Uncertainty Sources:

- **Closed-Loop Recycling Assumption:** The assumption that 100% of paper waste is recycled in a closed-loop system introduces some uncertainty. While the company may have a strong recycling policy, not all paper waste may be perfectly recovered, and external factors could affect the closed-loop system.
- **Waste Diversion Efficiency:** Although the recycling process is energy efficient, energy consumption and emissions may vary depending on factors like transport and reprocessing efficiency.

**Mitigation:** Improved tracking of actual recycling rates and energy use during recycling would reduce uncertainty in future estimates.

### 3. Business Travel (Category 6):

Business travel emissions were calculated using a combination of **mileage records for vehicles** and **spending data** for other transportation modes, such as trains, buses, taxis, and boats. Air travel emissions were based on **miles travelled** between origin and destination airports, using DEFRA FY2023 emission factors.

## Scope 3 Uncertainties

### Uncertainty Sources:

- **Spending-Based Mileage Estimates:** For modes of transport where mileage data was unavailable (trains, taxis, buses, boats), FRP estimated miles travelled based on the amount spent and average cost per mile for each transport type. This introduces uncertainty, as actual travel distances may not correlate perfectly with spending, particularly if different services or travel classes are used.
- **Air Travel Emissions:** While DEFRA factors are reliable, uncertainties arise from the variability in flight routes, efficiency of aircraft, and travel class, which can impact emissions.

**Mitigation:** Moving towards more direct data collection for non-car travel (e.g., tracking miles travelled through ticketing systems) could improve accuracy.

### 4. Employee Commuting and Teleworking (Category 7):

Emissions from employee commuting and teleworking were calculated based on a **company-wide survey**. 64.08% of employees responded, and the results were extrapolated to represent 100% of the workforce. Teleworking emissions were calculated based on the percentage of time each employee worked from home.

### Uncertainty Sources:

- **Survey Response Extrapolation:** Since only 64.08% of employees responded to the survey, there is a degree of uncertainty in extrapolating the data to cover the entire company. Employee commuting patterns and teleworking habits may vary among non-respondents, leading to potential over- or under-estimations.

- **Teleworking Emissions:** The emissions from teleworking are based on assumptions about home energy use (e.g., heating, electricity) during working hours. These assumptions may not reflect the actual energy consumption, which can vary depending on home office setups and local weather conditions.

**Mitigation:** Increasing survey response rates and refining teleworking energy consumption estimates based on more detailed data (e.g., household energy bills) could reduce uncertainty.

### Managing and Mitigating Uncertainty

To address these uncertainties, FRP has taken the following steps:

- **Standardised Emission Factors:** The company uses DEFRA FY2023 emission factors, ensuring alignment with national GHG reporting standards and applying consistent methodologies.
- **Accurate Data Collection:** Where possible, FRP relies on verified data, such as utility bills, mileage records, and supplier-provided information, to minimise discrepancies.
- **Conservative Assumptions:** In areas where direct data is unavailable or incomplete (e.g., spending-based travel estimates, survey extrapolation), conservative assumptions are applied to avoid underestimating emissions.

By using standardised methods and improving data accuracy, FRP's Scope 3 GHG emissions estimates align with ISO 14064 principles of transparency, accuracy, and continual improvement. The company is committed to refining its data collection and calculation methodologies to further reduce uncertainties in future reporting cycles.

# Declaration and Sign Off

## 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 Streamlined Energy and Carbon Reporting 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 board of directors (or equivalent management body).

Signed on behalf of the Supplier:

A handwritten signature in black ink, appearing to be 'J. Smith'.

24/10/2024