GREENHOUSE GAS EMISSIONS REPORT (2023)

Report for: MTC UK

Pre-QA DRAFT

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MTC

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Ricardo is certified to ISO9001, ISO14001, ISO27001 and ISO45001.

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1. INTRODUCTION

1.1 SCOPE AND OBJECTIVES

- **This report has been issued as a pre-review Draft – A final version will be issued following the formal Quality Assurance review by Ricardo.**
- This report provides an annual update on MTC UK's Greenhouse Gas emissions, the third year of reporting.
- It shows how emissions have changed year on year, as MTC progress towards their target of Net Zero scope 1, 2 and 3 greenhouse gas emissions by 2035, compared to a 2021 baseline.

2. GREENHOUSE GAS EMISSIONS

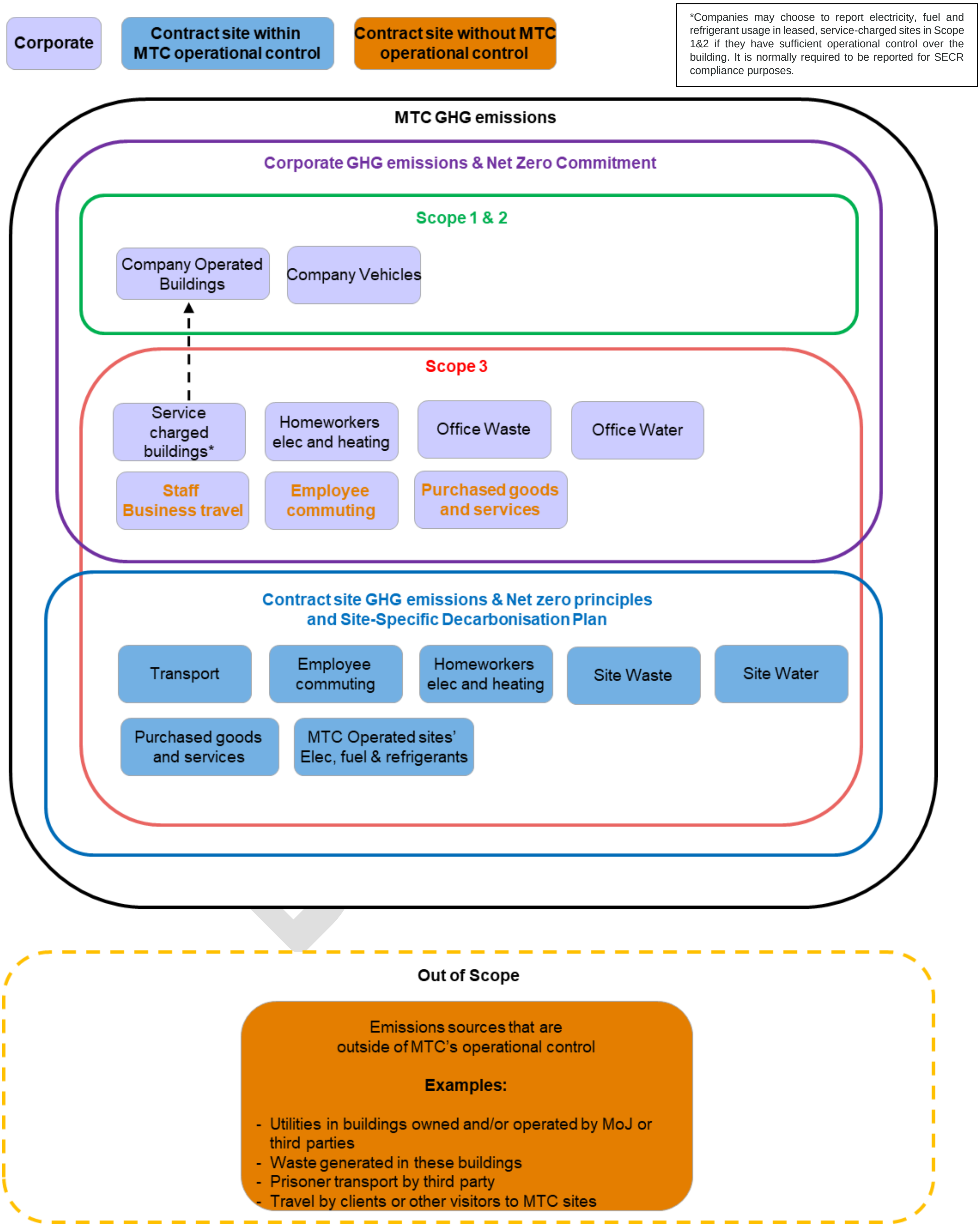
2.1 REPORTING BOUNDARY

The GHG Protocol Corporate Accounting and Reporting Standard, and the Corporate Value Chain (Scope 3) Standard provide guidance on greenhouse gas (GHG) calculations and reporting and have been followed in the development of MTC UK's carbon boundaries and the calculation of GHG emissions. These cover:

- Scope 1: direct GHG emissions that occur from sources that are controlled or owned by an organisation (e.g. fuel combustion in boilers, furnaces, vehicles).
- Scope 2: indirect GHG emissions associated with the purchase of electricity, steam, heat, or cooling.
- Scope 3: the result of activities from assets not owned or controlled by the reporting organization, but that the organization indirectly impacts in its value chain. The GHG Protocol defines 15 categories for scope 3 emissions. These have been reviewed against MTC's operations to identify which are applicable.

MTC's UK operations have been reviewed against the GHG Protocol standards to identify the boundary for the GHG assessment. The boundary, shown below, indicates which emissions fall into which scopes, what control MTC has over their reduction and what emissions are outside of scope.

Figure 1: MTC UK Emissions reporting boundary



- The emission generating activities have been split into three areas: corporate, contract site within MTC operational control and contract site without MTC operational control.
- The black boundary indicates MTC GHG emissions within the reporting boundary. This includes corporate and contract emissions.
- The green boundary shows emissions which are scope 1 and 2, and the red boundary which emissions are scope 3.
- The purple boundary indicates MTC's corporate GHG emissions, which are discussed in the corporate sections of this report and are included in the proposed Net Zero commitment. Three of these emission-generating activities (staff business travel, employee commuting and purchased goods and services) are highlighted in orange as they will include travel and goods / services associated with the contract sites where MTC has not got operational control.
- The blue boundary indicates MTC's contract site emissions which are discussed in the contract sections of this report and are covered by the Net Zero principles, and when produced, by the site's own specific decarbonisation plan.
- The orange dashed boundary indicates emissions outside of scope.

2.2 GREENHOUSE GAS EMISSIONS & PROGRESS VS. TARGET

MTC's GHG emissions were calculated for the calendar year 2023, these are detailed in the table below.

Table 1: MTC GHG emissions (2023)

Emissions area	Emissions (tCO_2e)	% of Corporate Total	% of MTC Total	Data source	Potential improvement
Corporate					
Electricity[1]	4.0	18.5%	0.9%	Energy consumption from office. Includes T&D Losses & WTT.	N/A
Gas	0.3	1.3%	0.1%	Energy consumption from office. Includes WTT.	N/A
Company vehicles	1.2	5.5%	0.3%	Fuel claims. Includes WTT.	N/A
Business travel	-	-	-	Could not be separated from staff travel to contract sites, below.	Separate from Contract site travel. Capture distance travelled and transport mode (e.g., size of vehicle, fuel type).
Homeworkers elec and heating	16.0	74.7%	3.7%	FTE homeworkers and DEFRA emissions assumptions.	N/A
Office Waste	-	-	-	No data as deemed negligible	Waste volume data and disposal method
Water	-	-	-	No data as deemed negligible.	Spend data and meter water consumption to obtain actual figures
Corporate Total	**21.5**	**100%**	**5.0%**		
Active contract sites					
Staff business travel to site - Car	287.9	-	67.2%	Staff mileage claims.	N/A
Staff business travel to site – Rail & Bus	5.8	-	1.3%	Expense claims	N/A

[1] Electricity, gas, company vehicles also include Scope 3 Well to Tank and T&D losses in this table.

Emissions area	Emissions (tCO_2e)	% of Corporate Total	% of MTC Total	Data source	Potential improvement
Employee Commuting to site	113.4	-	26.5%	Staff travel mileage recorded from March 2023. Jan-Feb extrapolated.	N/A
Contract Sites Total	407.1	-	**95.0%**		
MTC Total	**428.5**	**-**	**100%**		

Table 2: Scope 1, 2 and 3 Summary

Scope	2021 (tCO_2e)	2022	2023	Variance vs. Baseline Year (%)
Scope 1	0.7	2.8	1.2	70%
Scope 2	6.9	4.4	3.0	-57%
Scope 3 - Corporate (Excluding Employee Commuting)	25.6	49.1	17.3	-33%
Corporate Total	**33.2**	**56.4**	**21.5**	**-35%**
Scope 3 - Business Travel, Contracts	557.2	341.6	293.7	-47%
MTC Total exc. commuting	**590.3**	**397.9**	**315.1**	**-47%**
Scope 3 – Employee Commuting	*Not quantified*	*Not quantified*	113.4	New inclusion.
MTC Total inc. commuting	***Not quantified***	***Not quantified***	**428.5**	New inclusion.

In Table 2, Employee Commuting has been removed from the percentage comparisons in order to provide a true comparison to past carbon footprints as this emissions source was included for the first time this year.

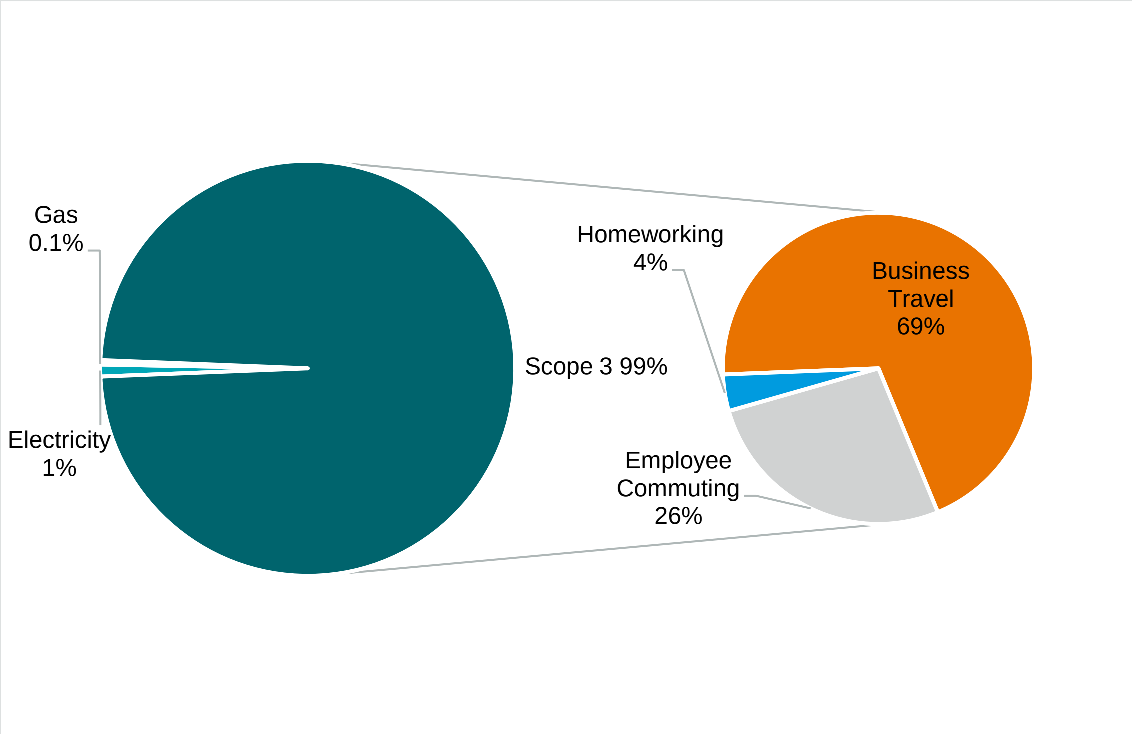
MTC's objectives are to reduce corporate Scope 1, 2 and 3 greenhouse gas emissions in absolute terms by:

- 25% by 2025.
- 50% by 2030.
- Net Zero by 2035, compared to a 2021 baseline.

MTC have seen a reduction of 47% in overall emissions (including scope 3 emissions from contracts), with Corporate emissions falling by 35% (excluding newly calculated Employee Commuting).

Figure 2 shows a breakdown of emissions by scope, in which it is clear that the vast majority of MTC's emissions are Scope 3. This is typical as MTC is only responsible for the Scope 1 and 2 emissions for the relatively small 6 Snow Hill site.

Figure 2: 2023 GHG emissions by scope (% of total)



3. OBSERVATIONS

- The corporate scope 3 emissions have decreased as a result of decreased corporate business travel to MTC's contracted site during 2023.
- The corporate emissions from the MTC offices are dwarfed by those from the contract sites, however the corporate emissions are the ones over which MTC has the most control and the best ability to implement data improvements and decarbonisation methods. These are also the emissions which MTC is expected to report in its carbon reduction plan and so may be worth the effort in improving and reducing, despite their smaller size.
- The contract sites are normally the larger emissions category , and in this year all emissions are associated with travel to the sites; this disparity can be expected to continue as more contract sites are adopted and if MTC takes on responsibility for energy, water and wate management at those sites.
- Scope 2 emissions have reduced in line with reduced electricity usage at the office.
- As Employee Commute has been included for the fist time in this year's inventory, it may be worth attempting to estimate this emissions source for the baseline year so that future footprints are comparable.

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