

# VMI 2022 Carbon Audit Report

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## Introduction

A Carbon Audit was carried out for VMI by Khandiz Joni of Creative Zero, in conjunction with Barry Bassett from VMI. The auditing process was conducted over two days, with the report going to provide an account for total emissions across all three scopes, which will need to be off set to obtain VMI's 'Carbon Neutral' kitemark.

What's not included in this report are a list of additional actions and recommendations for supporting VMI's net zero by 2030 strategy, as it falls outside the scope of work that was signed off.

## CO2e Emissions Overview

2022

In summary, VMI has reduced its total carbon emissions, from **629.7tnCO2e** in 2021 to **514.6tnCO2e** in 2022. These figures reflect capital expenditure purchases and is included here for completeness.

To accurately reflect the emissions that VMI has direct control over – in line with the [Science-Based Target Initiative](#) and [GHG Protocol](#) guidelines for SMEs - this report shows the emissions with and without capital expenditure and using both the operational control boundary and the market-based approach<sup>1</sup>.

CO2e Emissions without capital expenditure, for which the reporting organisation has no direct control over, but does include all other relevant scope 3 emissions are as follows:

**213tnCO2e** to **121.4tnCO2e** a reduction of 48.12% compared to the 2019 baseline and a 43% saving from 2021.

### Breakdown per scope

- **Scope 1** emissions have been reduced by **4.1%** 2021 figures from 37.6tnCO2e to 36.055tnCO2e
- **Scope 2** emissions also increased from **nil** to **2.04tnCO2e**, which accounts for emissions generated through charging EV's off-site.<sup>2</sup>
- **Scope 3** (excluding CapEx purchases) emissions have decreased by **53%** from 175tnCO2e to 82.288tnCO2e.

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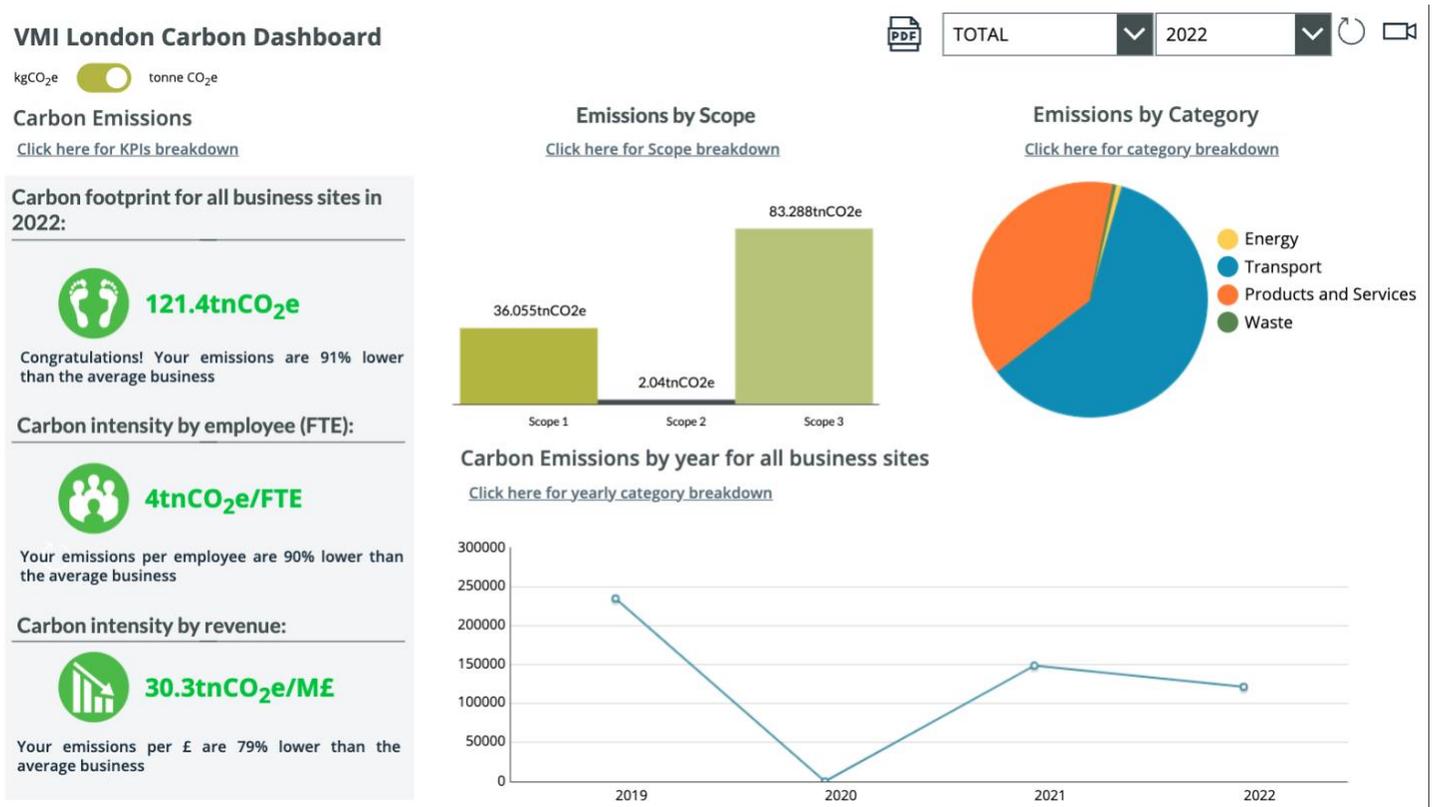
<sup>1</sup> As of 2022, VMI will disclose both market-based and location-based approaches for completeness. There is additional context on these two different approaches further down this report.

<sup>2</sup> As the reporting organisation did not collect data on where EV's were charged off-site for this reporting, the emissions associated to Scope 2 are an assumption based on the average UK Energy grid. If the organisation could provide evidence that all EV's were charged on 100% renewable energy, this would mean their Scope 2 emissions would remain nil.

It's worth noting that VMI has managed to reduce their scope 3 emissions, while also increasing the scope 3 boundary for this reporting year and will be off-setting the 121.4tnCO<sub>2</sub>e, as allowed by SBTi for the size of the business. The company have stated that they will aim to off-set CapEx-related emissions from 2023.

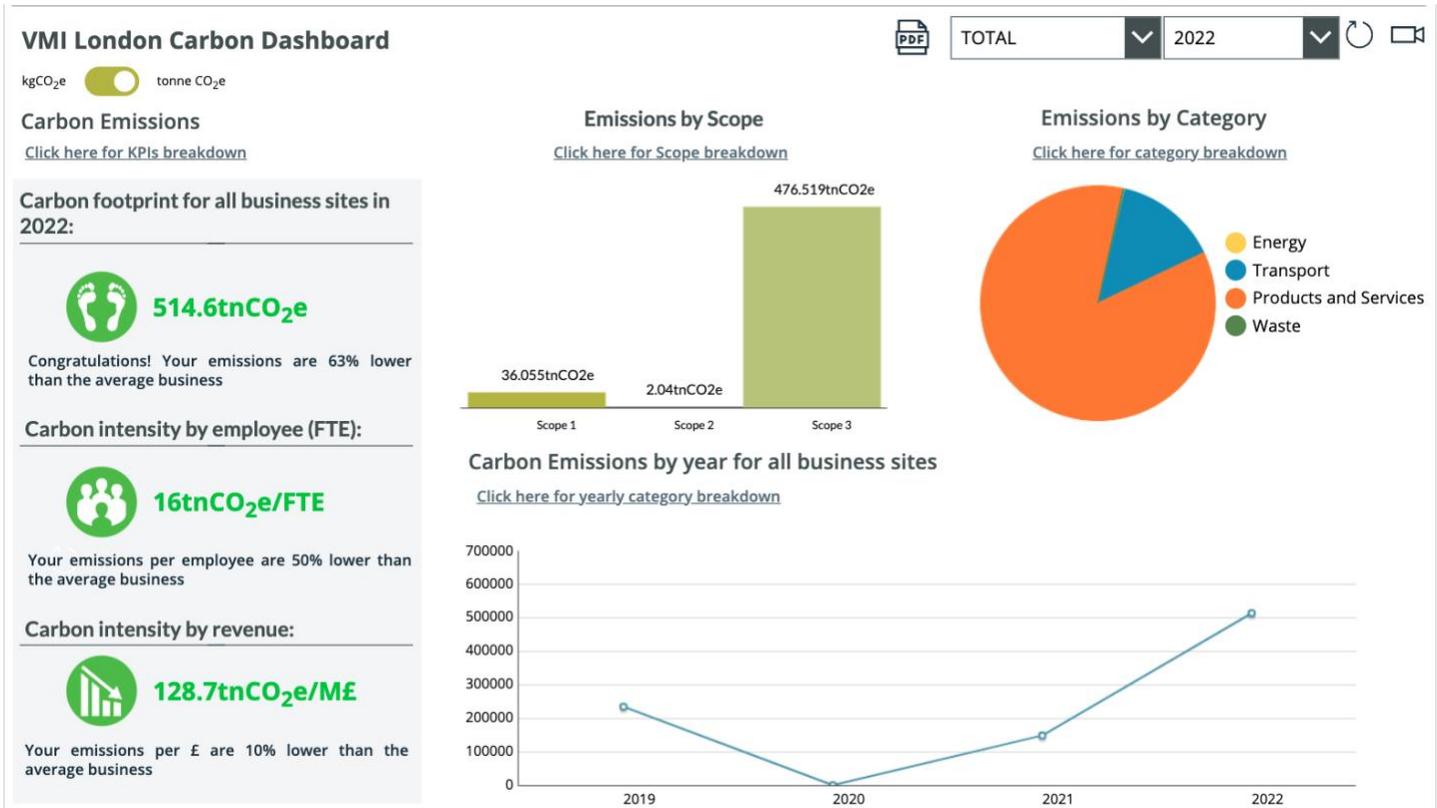
## Carbon Dashboard

The below dashboard shows the carbon emissions for both VMI sites, excluding Capex Purchases for which there is no direct control by the reporting organisation.



VMI also extended their scope 3 reporting boundary in 2022, to include more businesses services by £spend than in previous years. Despite this extended scope, they have been able to show an overall reduction in emissions.

The below dashboard shows the total carbon emissions, including all Scope 3 emissions from capital expenditure<sup>3</sup>, totalling **£1,580,051** across both sites. Although there was a 1.25% decrease in CapEx spend from 2021, the reporting organisation managed to reduce their overall scope 3 emissions from 592.003tnCO<sub>2</sub>e to 476.519tnCO<sub>2</sub>e, a decrease of 19.5%.



**Note:** The increase represented on this graph 'Carbon Emissions by year for all business sites' does not consider capital expenditure in 2021 and as such, should not be used as a comparison in this instance.

<sup>3</sup> VMI is still using a total £ to report on various scope 3 emissions. It is acknowledged that this method of reporting is based on estimations built on consumption-based national averages.

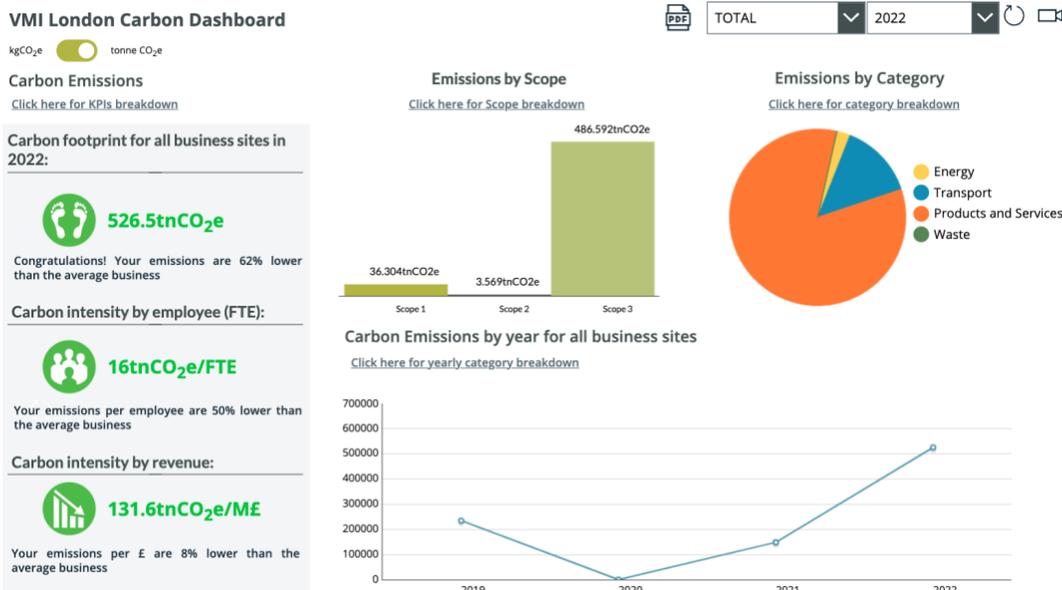
## Market-based vs Location-Based Approach

Additionally, VMI has opted to report on both location and market-based approaches for completeness and a willingness to adhere to best practice advised by GHG Protocol, although it is not a requirement for the size of the organisation.

The Market-Based Method calculates emissions from electricity that companies have either intentionally selected or have been limited to. Climate Essentials utilises this approach to determine the electricity emissions associated with contractual agreements based on the company's electricity providers. This method is especially crucial when the provider exclusively uses 100% renewable energy sources, which VMI does.

The Location-Based Method employs the average emissions intensity of a country to determine emissions and doesn't account for Renewable Energy Certificates or Guarantees of Origin (REGOs) supplied by energy providers. Consequently, Climate Essentials adopts the average UK grid carbon intensity factor for the reporting year.

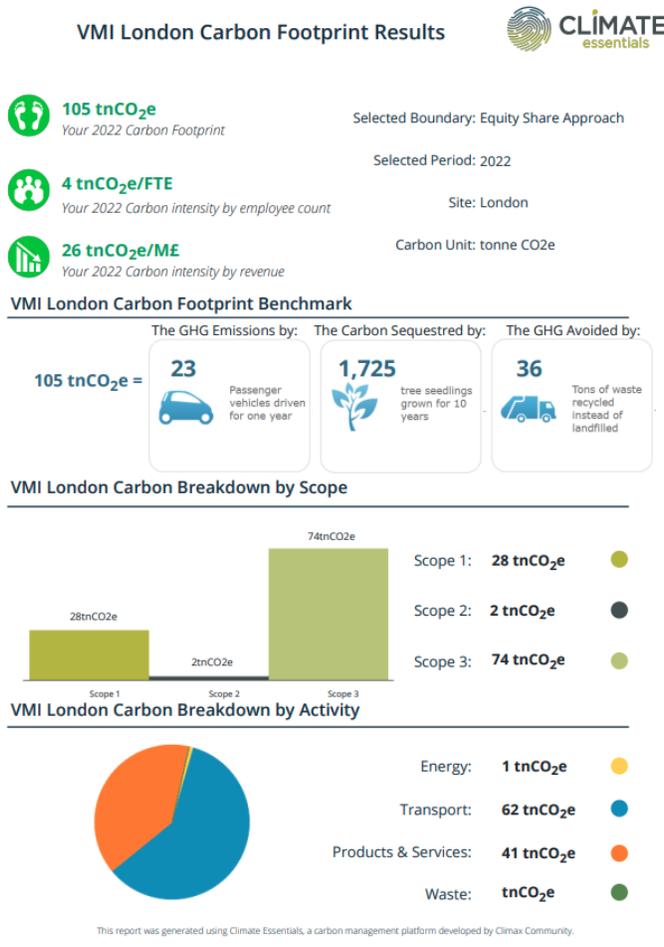
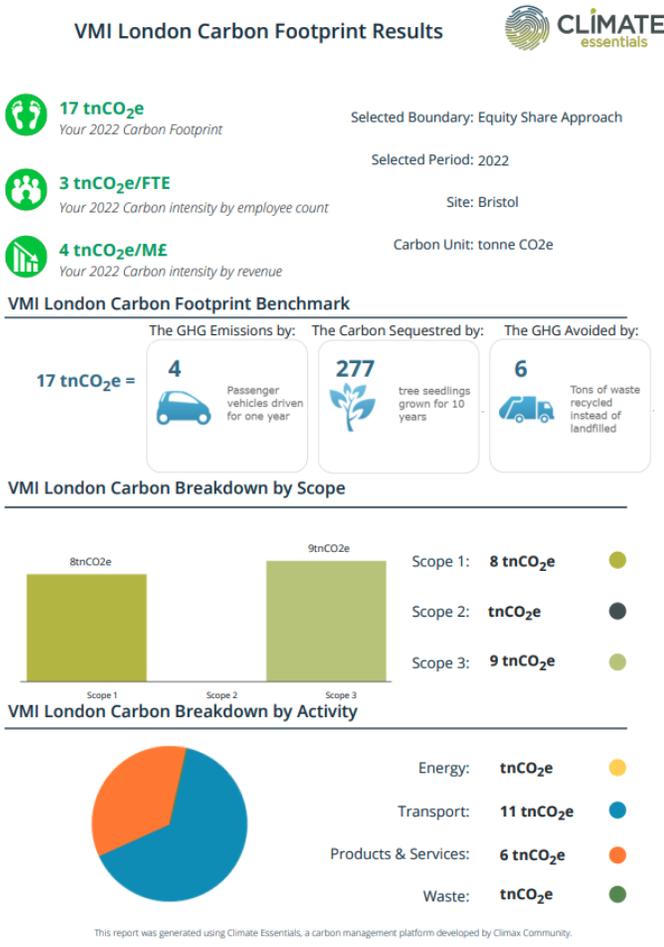
The below dashboard shows the increase of Scope 1 from 36.055tnCO<sub>2</sub>e to 36.304tnCO<sub>2</sub>e, and Scope 2 from 2.04tnCO<sub>2</sub>e to 3.569tnCO<sub>2</sub>e when reporting using the Location-Based approach. This considers the 14,078 kWh of onsite energy generated across both sites from the installation of solar panels in 2022.



**Note:** The increase represented on this graph 'Carbon Emissions by year for all business sites' does not consider capital expenditure in 2021 and as such, should not be used as a comparison in this instance.

# Detailed 2022 Carbon Emissions Figures by Site

The below dashboards provide a breakdown of emissions per site without CapEx expenditure.



## Savings Realised

Carbon reduction interventions actioned at the Bristol office during 2022, which included the installation of Solar Photovoltaic Panels, Ceiling Insulation, Wall insulation, Double Glazing and LED lighting, have saved an estimated total of 7.7tnCO<sub>2</sub>e and a financial saving of £1,620.

## KEY MILESTONES ON THE NET ZERO ROADMAP

2018

- All Electricity is 100% renewable

2019

- Benchmark for carbon reduction
- Become a verified London Living Wage Employer.

2020

- Measures delayed due to COVID

2021 APPROX CO2E EMISSION SAVINGS = 16.4T

- Create a company travel policy which minimises air and road travel and promotes video conferencing, rail travel, and discriminates, where possible, between airlines based on fuel and fleet efficiency.
- Ensure heating/cooling system has smart, automated, and minimised "on" times.
- Create a company policy that all meals and drinks paid for by the company are vegetarian saving approx. 480 kgs of CO2e (based on current employee count and purchasing levels). - **Updated: The company adopted a low-meat policy by polling all staff and taking the result to be company policy.**
- Banking exclusively with Coop with excellent ESG standards
- Change Bristol's energy to a renewable energy company creating and supporting UK renewable energy and not reliant on REGOS.
- 7-day timer installed for fresh air supply fans to offices in London.
- Replace all lighting in Bristol facility with known Lumens/Watts-rated LED lights. This reduced light-caused energy consumption by up to 90%.
- Waste Audit completed, though only outline figures provided and waste provider unable to supply greater detail. – **Completed in 2022. Collect My Waste, VMI's waste provider confirmed that nil waste went to landfill. What could not be reused or recycled was burnt for energy conversion.**

2022 APPROX CO2E EMISSION SAVINGS = 20T. VMI to be certified Carbon Neutral

- Carbon emissions that the company is creating of across all facilities according to Science-Based Target Initiatives, are to be audited and offset with viable schemes to make VMI Carbon Neutral. This will be charged to clients as £1 for every £1500 of turnover. **Update: VMI will off-set using albert accepted off-setting scheme through Ecologi, totalling £2,666**
- Loft insulation and triple glazed roof lights installed at Bristol.
- 21KW Solar PV array for London and Bristol buildings to be installed.

- Three EV delivery vans and one delivery car ordered for delivery. Note that these were delayed from 2021, due to supply chain difficulties.
- Educate team at both facilities are to be educated on the basics of Climate Change so that they feel informed enough to speak about it and understand the urgency and what we can do about it.
- Create a procurement policy which asks what suppliers are doing to measure and reduce their emissions, and engage with them to provide help and collaboration on their own pathways to decarbonisation; switch where possible, to local suppliers of goods to reduce transport emissions.
- Measure and offset all employee commutes. Analyse the difference in emissions impact between homeworking and office working and adjust accordingly.
- Scope 3 analysis. As part of this the CO2e emissions created by the part we play in productions (our client-created emissions) will be more closely analysed.
- 25% of fleets now EV saving approx. 1705 CO2e emissions from the Bristol facility and 7584 CO2e from London.
- Installation of solar panels (PV) at Bristol facility, saving approx. 132 k CO2e
- Bristol facility fully insulated. We don't currently know what this will save, but if it saves 33% of natural gas emissions, it would save 1952 CO2e - **Updated (as highlighted in the above report)**
- Assess company against the United Nations Sustainable Development Goals and work towards any improvement necessary.
- Review and assess all recommended changes that have been rated "Medium" on your Bristol EPC Recommendation Report
- Perform a waste audit.
- Review annual supplier list and attempt to find low carbon suppliers for those who supply transport, waste and energy first.
- Review annual supplier list by spend. Concentrate efforts in finding low carbon suppliers for the supplies invested in most heavily.

## 2023 APPROX CO2E EMISSION SAVINGS = 25T

- Financial investments, including pensions, reviewed and if necessary, moved from institutions investing in arms, coal, oil and natural gas.
- Reduction of packaging by a minimum of 10%.
- Further the transition of client consumables into rental/reuse; essentially phasing out consumables.
- Review and assess all recommended changes that have been rated "Low" on your Bristol EPC Recommendation Report.
- Review the feasibility of installing LED lighting, loft and wall insulation, solar panels (PV), MVHR system, Reverse Cycle Heat system (with electric boiler for water), window replacement and eco toilets at the new London facility which we plan to move into in 2024, preferably while it's being built to avoid retrofitting which often creates extra cost and waste. - **Update: This will be done in 2026, when VMI plan to move London premises. All possible reduction actions have been implemented in line with the current EPC which was completed in 2022.**

- Web and cloud hosting: Ensure web, cloud hosts are using 100% renewable electricity in their Data Centres and offices; increase the efficiency of websites to lower the emissions they create.
- All employees are to be given an extra day's holiday to travel by rail instead of air for private holidays. We have already instigated a rail/EV policy for all European business travel.

## 2024 APPROX CO2E EMISSION SAVINGS = 27T

- All vehicles now EV, saving approximately 5,113 kg more of CO2e each year from the Bristol facility and 22,752 kg from London. - **Update: 5 out of 6 commercial vehicles will be electric by the end of 2024 (83%). The delay in this initiative is due the current fundamental limitations of EVs for large carry capacity. The company is looking into the practicality of EVO as an alternative to diesel.**
- All local courier and sub-contractor transport supply will be procured from electric or human powered vehicles.
- Review and assess all recommended changes that have been rated "Medium" on your London EPC Recommendation Report.

## 2025 APPROX CO2E EMISSION SAVINGS = 27T

- Reduction of 50% of 2019 emissions reached!!
- 100% of landfill waste has been eliminated or converted to recycling/circular waste.
- Natural gas dependency has been removed from all facilities based on reviews and implementation in previous years. Saving a further 3905 kgs CO2e each year from the Bristol facility and 10,233 from the London facility.

## 2026 APPROX CO2E EMISSION SAVINGS = NOT YET MEASURED

- The EPC calculations will change in 2025, thus look to get another EPC rating done in 2026/2027. May make further changes based on this review.

## 2028 APPROX CO2E EMISSIONS SAVINGS = NOT YET SCOPED

- Bristol Solar Panels pay off capital investment meaning from now VMI- Bristol largely is electricity cost-free and has possibly created a profit-centre as may be paid for supplying excess generated electricity to the national grid. (Recognise some buy-in from grid may be needed.)
- Upstream & downstream Scope 3 carbon emissions fully audited with changes made in suppliers immediately as appropriate. All Scope 3 emissions have been verified and neutralised by us or by the stakeholder responsible for them.

## 2030 APPROX CO2E EMISSION SAVINGS = 54T

- Net Zero reached across Scopes 1 & 2
- Working with our supply chain to reduce Scope 3 emissions by as much as possible.

2035

- Continual carbon auditing and residual carbon reductions and offsetting.
- Look to become a Carbon Positive Company by continuing to offset at our 2019 carbon baseline levels.

2040

- Continual carbon auditing and residual carbon reductions and offsetting.

2050

- Celebrate 20 years of continual Net Zero!
- Continual carbon auditing and residual carbon reductions and offsetting.