

# Carbon Reduction and Net Zero Plan

Supplier name: MTR Elizabeth line

Publication date: 6<sup>th</sup> December 2023

## Commitment to achieving Net Zero

As part of our Net Zero pathway, we are committed to reaching Net Zero by 2030 in Scopes 1 and 2 as an interim target based on our 2022/23 baseline.

MTR Elizabeth line (MTREL) is committed to reaching Net Zero (across all three scopes) by 2045 based on our 2022/23 baseline.

## Baseline Emissions Footprint

Baseline emissions are a record of the greenhouse gases that have been produced in the past and were produced prior to the introduction of any strategies to reduce emissions. Baseline emissions are the reference point against which emissions reduction can be measured.

**Baseline Year: 2022/23**

### **Additional Details relating to the Baseline Emissions calculations.**

MTREL (as MTR Corporation (Crossrail) Limited) was awarded the contract to operate the Elizabeth line (formerly Crossrail) in 2014 by Transport for London (TfL). This was for a period of 8 years which was subsequently extended for a further 2 years and is due to expire in 2025.

During the course of the Concession, MTREL has recorded and reported on its carbon emissions data.

Over the course of MTREL's current Concession Agreement a Staged Opening Programme was implemented, culminating with the opening of the Central Operating Section and launch of the Elizabeth line in May 2022, with through running services introduced in November 2022. From May 2023, the Elizabeth line increased its services to 24 trains per hour in the peak period in both directions.

Due to these progressive changes, there has not been a year where the line has been fully operational from which to set a reliable baseline. Therefore, for the purpose of this Carbon Reduction and Net Zero Plan, we have used our 2022/23 carbon emissions as a baseline year as this is the first reporting year where the Elizabeth line has been fully operational.

Where actual data was not available for inclusion in the 2022/23 baseline, best estimates have been derived in accordance with associated guidance and reporting standards for this Plan, including Greenhouse Gas Protocol guidance where appropriate.

To track progress towards our Net Zero target and the success of our carbon reduction measures, the 2022/23 baseline will be reported as a full operational year on a pro rata basis, so that it is directly comparable.

Baseline year emissions: 2022/23	
EMISSIONS	TOTAL (tCO <sub>2</sub> e)
Scope 1	7
Scope 2	54,279
Scope 3 (Included Sources)	19,819
<b>Total Emissions</b>	<b>74,105</b>

### Current Emissions Reporting

Reporting Year: 2022/23	
EMISSIONS	TOTAL (tCO <sub>2</sub> e)
Scope 1	7
Scope 2	54,279
Scope 3 (Included Sources)	19,819
<b>Total Emissions</b>	<b>74,105</b>

### Emissions reduction targets

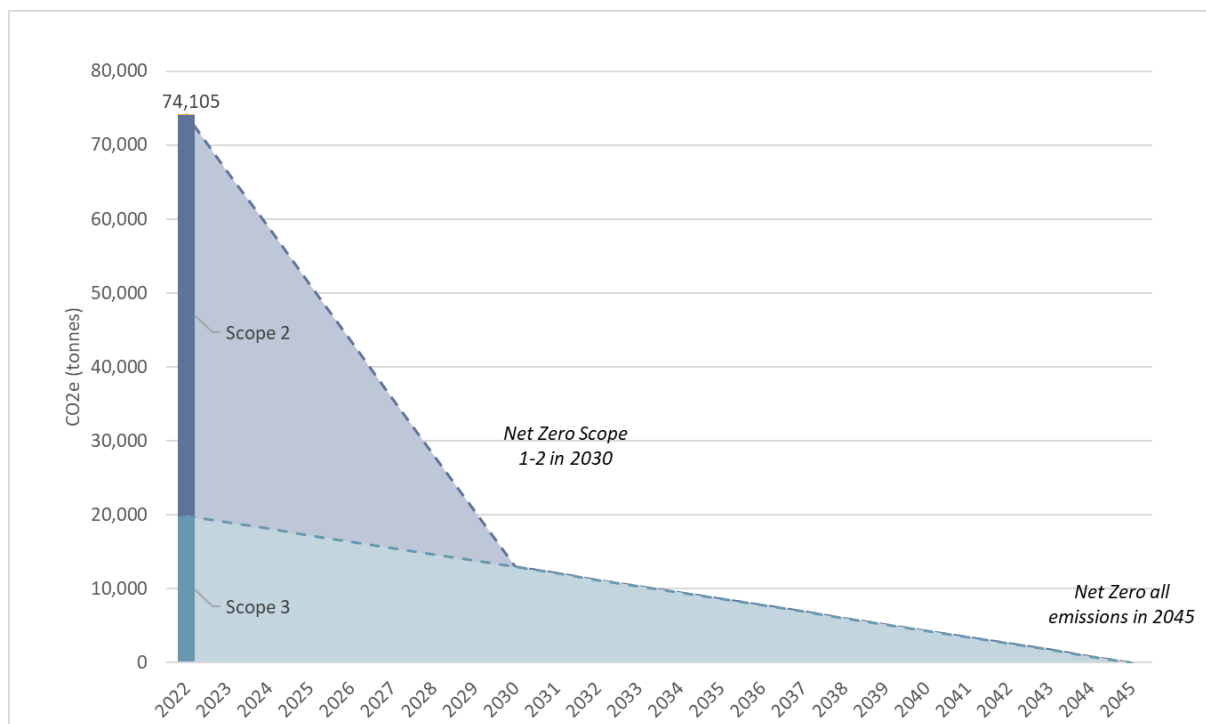
1	MTREL is committed to reaching Net Zero by 2030 in Scopes 1 and 2 based on our 2022/23 baseline
2	MTREL pledges to developing a Scope 3 Carbon Reduction Plan by end of 2024
3	MTREL is committed to achieving its aspirational goal of <b>Net Zero for all emissions by 2045</b> based on our 2022/23 baseline

## Our Carbon Reduction Targets

In order to continue our progress to achieving Net Zero, we have set out a linear path to Net Zero by 2045 as outlined in the graph below based on our 2022/23 baseline. This includes an interim target to achieve Net Zero for all Scope 1 and 2 emissions by 2030.

Traction electricity accounts for 97% of our Scope 2 and 91% of our Scope 3 emissions respectively. Whilst the carbon intensity of traction electricity is not within the direct control of MTREL (due to the central purchasing agreement with Network Rail), we will continue to work with Network Rail, TfL and other stakeholders to align the Net Zero traction electricity pathway with our targets and commitments.

This longer-term commitment and goal does not take account of current or future concession periods and is set out on a business-as-usual approach. This allows us as an organisation, and with our supply chain partners, to focus on and work towards, achieving the long-term goal of a Net Zero Elizabeth line, decoupled from procurement or concession periods.



## MTREL Pathway to Net Zero by 2045

Based on our current pathway we project that carbon emissions will decrease over the next 7 years to 12,295 tCO<sub>2</sub>e by 2030 which represents an estimated reduction of 83%.

## Carbon Reduction Initiatives and Projects

### Current and Completed Carbon Reduction Initiatives

As set out previously, we have used carbon emissions from the period 2022/23 as our baseline year and therefore this reported figure includes the carbon reduction benefits of completed and ongoing environmental, sustainability and carbon reduction projects and initiatives. Given our Net Zero commitment, much of our focus as the Elizabeth line has become fully

operational, has been on forward planning of projects and initiatives that will see us deliver this goal. Below are some key highlights of our ongoing efforts.

## Quality, Environmental and Energy Policies and Standards

MTREL is accredited to the following standards.

- BS EN ISO9001 Quality Management
- BS EN ISO14001 Environmental Management
- BS EN ISO50001 Energy Management

On reaching the milestones of becoming fully operational in May 2023, we have published a new Environmental and Energy Policy Statement that commits us to a range of challenging performance goals including to:

- Set challenging but realistic objectives and action plans to help improve our environmental performance and to reduce CO<sup>2</sup> emissions, energy and water consumption, and environmental incidents.
- Understand the impact of our actions: provide the right training and resources to eliminate or minimise these.
- Implement cost-effective energy efficiency measures and practices.
- Annually review our performance against our objectives and communicate progress on these, and our energy performance, as required.
- Work collaboratively with suppliers, contractors and across the communities we serve, to promote sustainability, encourage energy efficiency, and improve environmental performance.
- Hold Senior Leadership accountable for delivering objectives and providing resources to help us reach our goals.

The Environmental and Energy Policy Statement fully aligns with our Net Zero commitment as part of our holistic approach to environmental management and carbon reduction that ensures as an organisation from the top down, we are working towards shared goals.

In order to progress towards achieving our aligned goals and commitment to Net Zero, work has been done to ensure our people have the tools to comply. This has included new tools for the reporting of environmental incidents and for tracking energy and water consumption and the generation of waste.

## Sustainability achievements

In 2022, we completed an LED replacement programme to improve energy efficiency within our buildings, targeted to reduce electricity consumption as well as our Scope 2 emissions.

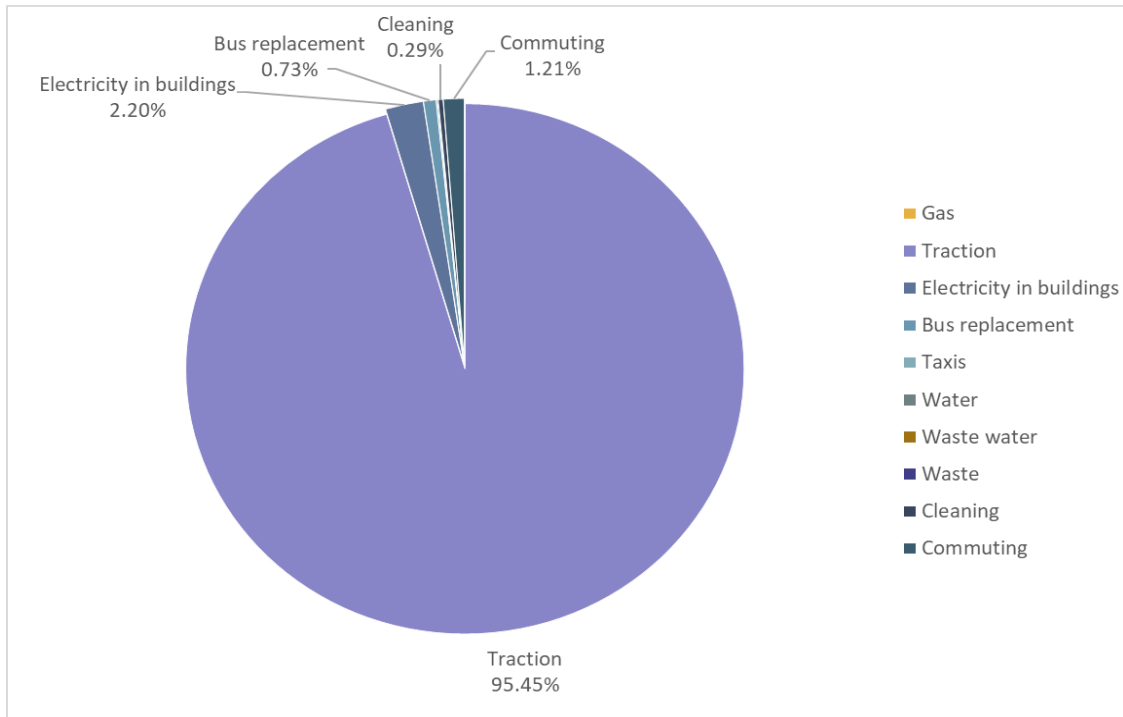
In this period, MTREL rolled out its full fleet of 70 Class 345 trains. These trains automatically adjust lighting levels and heating and air conditioning to suit the ambient conditions. They also feed regenerative braking energy back into the power network when braking, resulting in 25% less energy use, as well as delivering faster journey times and increased capacity on our network.

Elsewhere within our operation, we have worked closely with our facilities management and cleaning partners to recycle over 160 tonnes of waste.

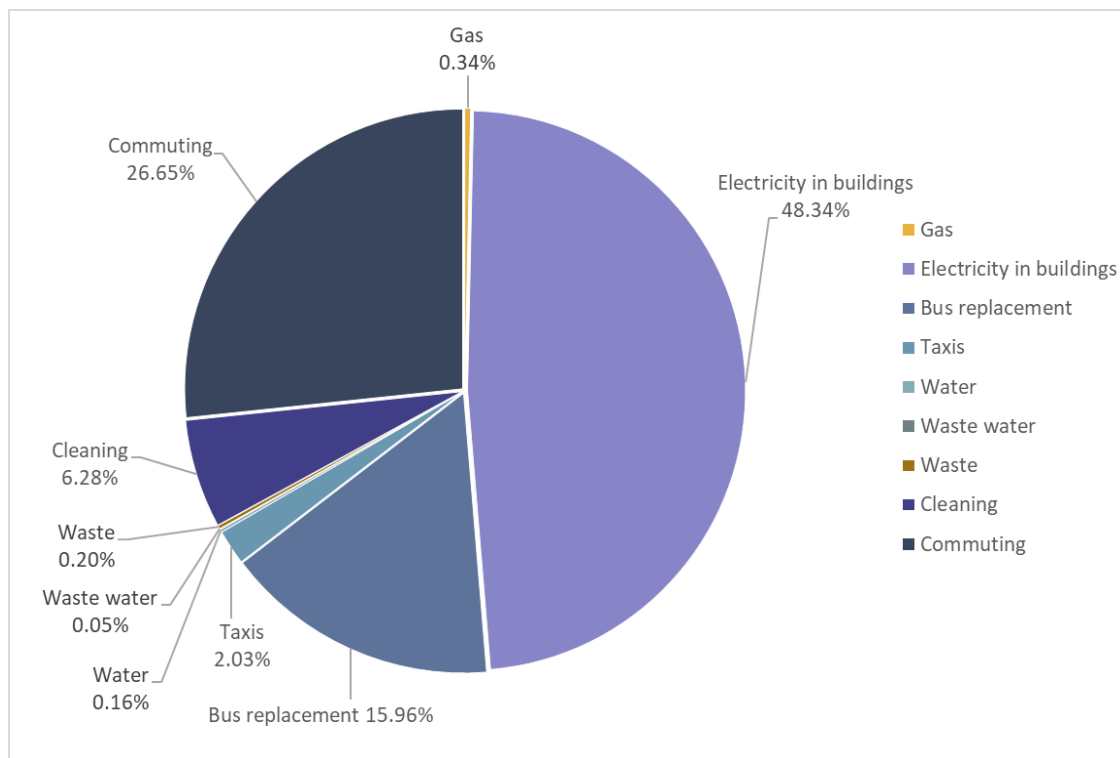
We planted over 500 plants and trees across the properties we manage.

### Future Carbon Reduction Initiatives and Projects

The charts below provide a visual representation of the carbon emissions reported above based on the source of the emissions.



MTREL 2022/23 Emissions by Source



MTREL 2022/23 Emissions by Source Excluding Traction Power

The full source emissions chart indicates that the largest part of our carbon footprint comes from traction power to run our fleet of trains which is reported in Scope 2 emissions.

The chart showing emissions excluding traction electricity is important in that it shows where our focus needs to be organisation wide to deliver our Net Zero commitment.

In considering our existing footprint, MTREL's near term priorities for our pathway to Net Zero is focused on four categories that make up the majority of our baseline emissions with an additional focus on data recording and collection. These four areas are:

- Our Trains
- Our Buildings
- Our People
- Our Supply Chain Partners

More details on each of these focus areas are set out below including planned initiatives and projects for the next period.

### Our Trains

Traction power for our fleet of trains is sourced entirely from Network Rail, via the track side supply, and is largely reported in our Scope 2 emissions (with some transmission related emissions in Scope 3). Network Rail has a Net Zero by 2050 commitment for traction electricity and MTREL remain engaged in the planning process which is working towards this target. Whilst the decarbonisation of traction power is largely outside of MTREL's direct control, the impact of this decarbonisation is reflected in our own pathway to Net Zero and will be included in the annual updates to conversion factors for traction electricity. For example, the change in the conversion factor for between 2021/22 and 2022/23 represented a 10% reduction in the carbon intensity of traction electricity per kWh.

The area that is within MTREL's control, and is a key focus, is that of reducing electricity consumed in operation.

Following the full introduction of the Class 345 trains in 2022/23, MTREL already operate one of the most efficient fleets running on the UK rail network, by the measure of CO<sub>2</sub>e emissions (grams) from electricity consumption per electric vehicle kilometre at 266 grams<sup>1</sup>.

Notwithstanding current performance in efficiency, we recognise that there is further potential for additional savings and reduced emissions from operations. To this end, MTREL will be introducing the MyDrive app in early 2024, which aims to inform drivers of actions to maximise the efficiency of journeys.

In addition, by the measure of CO<sub>2</sub>e emissions (grams) per passenger kilometre, again MTREL is operating one of the most efficient services in the UK with recorded emissions of 17 grams per person per kilometre<sup>2</sup>. Whilst this is a positive measure, with a 61% reduction from the previous year 2021/22, it is anticipated that the efficiency measures outlined above, coupled with maximising capacity on our network in the coming years, will see further improvement in this metric which will be reflected in our reduced carbon emissions.

## **Our Buildings**

Excluding traction power, electricity use in buildings is the largest source of our carbon footprint.

Building on our existing projects, we will be delivering new initiatives to reduce electricity use and wider resource use across our buildings. This will include the installation of technology to set and control the temperatures at some of our stations in order to reduce energy use (target of installation at top 5 stations for energy consumption by the end of 2024).

We are investigating rainwater harvesting and/or smart meter installation on water meters to be completed by the end of 2024.

As part of our Environmental Improvement Plan, we are investigating / developing ways to increase biodiversity and implement, if possible, initiatives with a focus on native planting. This will have an overall carbon benefit as plants absorb CO<sub>2</sub>.

Our established network of Environmental Champions is tasked with identifying quick win opportunities for energy and carbon reductions at our stations and in our buildings.

Additionally, we plan to investigate, with the relevant building owner, opportunities for energy saving through either capital investment programmes or as part of planned and reactive maintenance measures. This could include, for example, upgrades or improvement to energy management systems, HVAC, or the installation of renewable energy technologies.

## **Our People**

Our people are our best asset in our journey to Net Zero, but they also contribute to our carbon emissions through their method of travel to work and how they do their jobs.

During the next 12 months, we will be further seeking to reduce the impact of commuting and business travel through encouraging sustainable choices in travel for our staff and supply chain partners.

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<sup>1</sup> ORR Rail emissions data April 2022 to March 2023 (November 2023)

<sup>2</sup> ORR Rail emissions data April 2022 to March 2023 (November 2023)

We will also look to run further 'Here to Help' sessions at our stations, with a focus on active travel, to help engage customers and colleagues with sustainable transport. Our plan is to run two travel focused 'Here to Help' sessions by the end of 2024.

Additionally, we will be undertaking a sustainable travel survey of our colleagues and supply chain partners (based at our sites) to better understand and record the carbon impact of travel and commuting across our organisation. This will be repeated on an annual basis to fully understand and quantify the benefit of future initiatives.

We have a planned initiative to reduce the carbon footprint of taxis through reducing use, when possible, and utilising electric vehicles instead of traditional fuels. We have a target of reducing taxi use for staff by 10%, compared to the 2022/23 baseline. In addition, our partner Addison Lee has pledged to make its passenger fleet fully electric by 2023, which will be reported in our Scope 3 emissions.

We are committed to training our people and will investigate further environmental, energy and carbon literacy training modules to be included as part of our induction process and as part of continuing development and refresher training.

Given the volume of passengers using our network and who pass through our stations on a daily basis, we recognise that not only do our customers impact our carbon footprint through the waste they dispose of at our stations, but also that we have the opportunity to inspire positive sustainable behaviours.

We are working with our FM contractor and waste services partner to set up a Waste Roadshow at key stations to increase customer awareness on waste segregation and recycling.

Additionally, we have a programme to roll out better signage for platform waste to aid customer understanding of the correct waste streams.

### **Our Supply Chain Partners**

We continue to engage and work proactively with our supply chain partners on sustainability and carbon reduction initiatives.

Our main suppliers, including FES Group and Addison Lee, are committed to their own Net Zero pathway and we will continue to collaborate on joint opportunities and initiatives. This is particularly inherent in some of the initiatives mentioned previously where we are collaborating closely with facilities management, maintenance and cleaning partners to deliver many of these initiatives.

In addition, we are continuing to share knowledge and learning from, and with, our key supply chain partners to identify and deliver further carbon reduction initiatives.

Within MTREL we are planning training on Sustainable Procurement for key personnel within our organisation, with a target of training being delivered to our top 10 procurers by the end of 2024.

In addition, MTREL is committed to identifying opportunities to embed sustainability and carbon reduction in contracts for goods and services and we will be identifying opportunities and seeking to embed best practice in procurement decisions and new contracts as the opportunities arise. This could include, for example, ensuring that data is provided to allow for more accurate reporting, setting contractual incentives for delivering low carbon products or services, encouraging suppliers to develop and deliver their own Carbon Reduction Plans.



## Declaration and Sign Off

This Carbon Reduction and Net Zero 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<sup>3</sup> and uses the appropriate Government emission conversion factors for greenhouse gas company reporting<sup>4</sup>.

Scope 1 and Scope 2 emissions have been reported in accordance with 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<sup>5</sup>.

This Carbon Reduction and Net Zero Plan has been reviewed and signed off by the board of directors (or equivalent management body).

### Signed on behalf of MTREL



Mike Bagshaw, Managing Director

mtrElizabeth line | 

Date: 6 December 2023

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<sup>3</sup><https://ghgprotocol.org/corporate-standard>

<sup>4</sup><https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting>

<sup>5</sup><https://ghgprotocol.org/standards/scope-3-standard>