

MTR Corporation Limited Climate Change Strategy

About MTR Corporation

Every day, MTR connects people and communities. As a recognised world-class operator of sustainable railway services, we are a leader in safety, reliability, customer service and efficiency.

MTR has extensive end-to-end railway expertise from design to planning and construction through to commissioning, maintenance and operations. MTR carries passengers worldwide in Hong Kong, the Mainland of China, the United Kingdom, Sweden and Australia. Going beyond railway project delivery and operation, MTR also creates and manages dynamic communities around its network through seamless integration of rail, commercial and property development.

Our Climate Commitment

Climate change is highly material to MTR. While we provide a mass transit system that contributes to offsetting emissions from road-based vehicles that are still largely powered by fossil fuel, our railway operations and properties which we manage are affected by the already changing climate such as stronger typhoons and heavier rainfall episodes. With such close link to our services, it is necessary to integrate climate change into our overall business strategies and operational practices.

Our vision is to connect and grow communities with caring service. Considering the imminent nature of climate risks imposed on our operations, MTR is committed to:

- Identifying, assessing and regularly reviewing the impacts of climate-related risks and opportunities and mitigating these risks;
- Reducing our carbon emissions in a targeted and continuous manner;
- Influencing our energy providers and supply chain to collaboratively address climate risks; and
- Reporting transparently our carbon footprint, initiatives and status annually.



Our Climate Risks and Opportunities

Given the enduring nature of our rail and property infrastructures, MTR recognises climate change as an issue that poses both risks and opportunities in short, medium and long terms. MTR takes on climate change through a risk-based approach and has identified climate-related risks under the Enterprise Risk Management framework, which are updated and reassessed at least annually.

Climate Risks

Extreme weather events, such as stronger typhoons and increased likelihood of flooding and landslides due to heavier rainfall patterns could result in service disruptions, increased safety risks, and damages to our rail and property assets. Heat stress from rising temperatures could also pose additional burden to our Heat, Ventilation and Air-conditioning systems, and cause equipment or hardware failure.

Around 75% of our total energy use attributes to the operation of our railway networks. In view of our business expansion, increase in train frequency to alleviate overcrowding in trains and provision of a comfortable riding environment, there will be corresponding rise in electricity consumption that need to be managed proactively. This is particularly challenging in Hong Kong as we have a limited choice of power suppliers.

Climate Opportunities

As an electricity-powered mass transport operator, our railway operations are less carbon-intensive than other modes of road transport which are powered by fossil fuels. The Hong Kong Special Administrative Region (HKSAR) Government's Climate Action Plan 2030+ stated that our railway system is the backbone of Hong Kong's low-carbon public transport network. To this end, MTR will continue to expand our network and the number of patronages is expected to increase. Such network expansion will lead to increase in our absolute carbon footprint, although we are able to offset more direct emissions from traditional modes of transport, leading to an overall reduction of carbon footprint arising from transport for the society as a whole.

The growth of the green finance market brings about new funding opportunities to invest in sustainable and green projects. Building upon our 2016 Green Bond Framework, we established a Green Finance Framework in 2018 to expand the scope of green bonds to include green loans and other green credit facilities to support our low carbon transportation and energy efficiency projects.

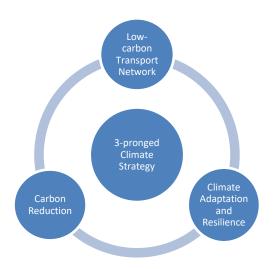
Our Reduction Targets

To help achieve the global goal under the Paris Climate Agreement, MTR has developed carbon reduction targets to reduce carbon footprint. As our operations are predominantly powered by electricity supplied by other parties, our efforts are mainly focused on energy reduction. Details of our existing targets, their progress and achievements are reported in our annual sustainability report. MTR will continue to review and renew the reduction targets, taking into account our business expansion and service enhancement.



Our Climate Strategy

MTR has integrated climate change considerations into our business strategy to ensure that climate change considerations are incorporated in our planning, design and operations. It is anticipated that the most significant effects of climate change are likely to emerge over the medium to longer terms. In response to the climate challenge, MTR adopts a three-pronged strategy across our operations: (1) serving as a low-carbon public transport network, (2) implementing carbon reduction measures, and (3) adapting and building resilience to climate change. MTR will also continue to raise funds through the Green Finance Framework to support respective low-carbon initiatives.



Strategy 1: Serving as a Low-carbon Public Transport Network

MTR will continue to support the HKSAR Government to utilise railway operations as the backbone of Hong Kong's low-carbon public transport network. We have been working closely with the HKSAR Government in taking forward the railway Utilise railway operation as the backbone of HK's low-carbon public transport network

Take forward the rail expansion plans stipulated in the RDS-2014

Apply the R+P model to promote low carbon urban mobility

Grow strategically into overseas and regional markets to connect more communities with a low-carbon public transport system

expansion plans stipulated in the Railway Development Strategy 2014 (RDS-2014) 1 to develop a safe, efficient, economically viable and environmentally friendly transport system in Hong Kong by opening up new railway lines and their connections to the existing network.

MTR will continue to look for new opportunities in network expansion to secure a significant step towards the low carbon future. We will continue to apply the Rail plus Property (R+P) model², where appropriate, to enhance the walkability and connectivity of the city as well as to promote low carbon urban mobility.

¹ Published by the HKSAR Government, the RDS-2014 provides a framework for planning the future expansion of Hong Kong's railway network up to 2031.

² The R+P model enables us to provide reliable and high quality railway services for the public. The land development rights granted alongside railway alignments, upon payment of the relevant land



Apart from Hong Kong, MTR will also continue to seek opportunities to grow strategically into overseas and regional markets. Currently, we have established a presence in four countries – the Mainland of China, the United Kingdom, Sweden and Australia. We will continue to leverage on the wealth of experience we have accumulated to connect more communities with a low-carbon public transport system.

Strategy 2: Implementing Carbon Reduction Measures

Recognising the extent of our portfolio and potential increase in carbon footprint, we will continue to focus our efforts on reducing energy consumption.

Apart from complying with applicable legislative requirements, we will take a proactive approach in

Carbon
Reduction

Carbon suitable energy reduction measures and explore opportunities in new technologies to enhance energy efficiency

Adopt suitable energy reduction measures and explore opportunities in new technologies to enhance energy efficiency

Apply life cycle approach to assess railway projects to incorporate low carbon design

adopting more stringent energy efficiency requirements beyond compliance. We will continue to adopt the latest green building standards, such as BEAM Plus rating in Hong Kong, for new building development and retro-fitting existing buildings to reduce associated climate-related impacts arising from energy and waste and increase resilience. We will work closely with our project partners in planning and constructing new rail and property development projects to ensure the incorporation of energy efficient and climate resilient design in such long-standing infrastructures. We will continue to adopt suitable energy reduction measures and explore opportunities in new technologies to enhance energy efficiency in all our projects.

In the meantime, MTR will explore the possibility of adopting more renewable energy (RE) where feasible. For example, the Feed-in Tariff (FiT)³ and Renewable Energy Certificates (RECs)⁴ under the new Scheme of Control Agreement between the two power companies in Hong Kong and the HKSAR Government have provided further opportunities in moving towards low-carbon operations through the adoption of RE and purchasing RECs. MTR will participate in communication with government and energy suppliers to encourage and promote the decarbonisation of energy supply and improving the access to low carbon energy. We will also actively review the suitability and practicality of opportunities that can offset our carbon emissions.

MTR will continue to apply a life cycle approach to assess our railway projects at different stages from conception to operations to look for opportunities in incorporating low carbon design and initiatives including the reduction of embedded carbon at all project stages.

premiums, allow us to generate income through assets such as investment properties. The resources are in turn used to support railway operations and help fill funding gaps when building new railway lines.

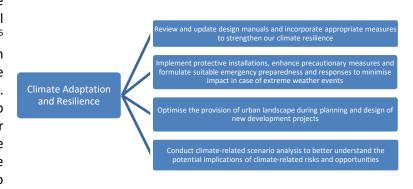
³ The FiT Scheme encourages the development of RE produced by solar or wind power systems by allowing customers to connect RE systems to the grid and sell the electricity generated back to the power company at favourable rates.

⁴ REC refers to a document showing electricity generated by local RE systems issued by a power company that can be purchased by customers.



Strategy 3: Adapting and Building Resilience to Climate Change

According to the Intergovernmental Panel Change 5 Climate (IPCC), impacts from climate change have already been observed. MTR will continue to improve infrastructures' resilience to the changing climate and take measures to adapt to different climate conditions.



MTR has updated and will continue to review our design manuals and incorporate appropriate measures to strengthen climate resilience of our railway and property infrastructures. We will continue to implement protective installations, enhance our precautionary measures and formulate suitable emergency preparedness and responses to minimise impact in case of extreme weather events.

MTR will continue to optimise the provision of urban landscape during planning and design of new development projects. MTR will conduct climate-related scenario analysis ⁶ as recommended by the Task Force on Climate-related Financial Disclosures (TCFD) to better understand the potential implications of climate-related risks and opportunities on us.

Our Disclosure

Climate change has been gaining more attention globally. As a responsible company, MTR has set out to consolidate our effort and manage climate change more strategically. We publicly disclose our carbon footprint, carbon reduction initiatives, climate adaptation approaches and progress through our sustainability website and an annual sustainability report to maintain transparency and enhance connection with our stakeholders. Our response to CDP⁷ is also available to the public. Please refer to MTR's sustainability report for details.

⁵ IPCC Special Report on Global Warming of 1.5°C, October 2018

⁶ Scenario analysis is a process for identifying and assessing potential implications of a range of plausible future states under conditions of uncertainty for developing strategic plans that are more flexible or robust, e.g. consider climate-related scenarios including a 2°Celsius or lower scenario.

⁷ Formerly known as Carbon Disclosure Project