

# HONG KONG ROADMAP ON POPULARISATION OF ELECTRIC VEHICLES

UPDATED  
VERSION



February 2026



**Environment and Ecology Bureau**

The Government of the Hong Kong Special Administrative Region  
of the People's Republic of China

**碳中和**  
Carbon Neutrality

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# Preface

In 2021, the Government formulated the first Hong Kong Roadmap on Popularisation of Electric Vehicles (Roadmap), promoting the wide use of electric vehicles (EVs) to help Hong Kong move towards its vision of “Zero Carbon Emissions • Clean Air • Smart City”. The first Roadmap also set a target of ceasing new registrations of fuel-propelled private cars (PCs), including hybrid vehicles, in 2035 or earlier.

## Zero Carbon Emissions • Clean Air • Smart City

Hong Kong is advancing towards the ambitious goal of achieving zero vehicular emissions, carbon neutrality, and harmonious coexistence between humanity and nature before 2050. We have observed that many overseas governments are adjusting policies to slow down the pace of vehicle electrification. These shifts are partly due to the prevailing global economic environment. They also reflect the highly complex nature of the vehicle electrification transition. Our Country is determined to achieve carbon neutrality, and Hong Kong will also rise to the challenge. We shall adhere to our goal of ceasing new registrations of fuel-propelled PCs, including hybrid vehicles, in 2035 or earlier, and striving to achieve zero vehicular emissions and carbon neutrality before 2050.

Over the past few years, with vigorous government promotion and concerted efforts of stakeholders, EVs have developed rapidly in Hong Kong. The number of vehicles has grown more than fourfold in just four years, from around 28 000 in 2021 to around 149 000 by the end of 2025. The penetration rate of electric PCs<sup>1</sup> (e-PC) has exceeded 70%, meaning that over seven out of every 10 first registered PCs are EVs, with growth rate ranking the top among the world.

At present, the development of electric commercial vehicle (e-CV) technology and the market remains generally slower than that of e-PCs. There are limited choices in models, and many vehicle types, especially heavy-duty vehicles, fail to meet users’ operational needs. Although the overall electrification of commercial vehicles (CVs) is still in its early stages, certain e-CV

vehicle types including franchised buses, taxis, van-type light goods vehicles (LGVs), and motorcycles, have achieved a relatively mature stage in market application and are better suited to operational requirements, thus reaching a stage of large-scale application. We will take a pragmatic approach to progressively promote the application of these vehicle types in Hong Kong. For e-CVs that have not yet reached the stage of large-scale application, we will establish a working group to create conditions for their future large-scale application, particularly by introducing more models suitable for local use, enhancing competition, and providing options to meet operational needs.

Regarding charging-enabling infrastructure, unlike other places that primarily rely on public charging facilities, Hong Kong began promoting the installation of charging-enabling infrastructure in new car park parking spaces through tightened gross floor area concessions as early as 2011. Coupled with the “EV-charging at Home Subsidy Scheme”, there are now around 130 000 parking spaces with charging infrastructure in private buildings and residential car parks in Hong Kong. The number of public chargers has also increased by 2.5 times to around 16 440 as compared to 2021.

The Government’s short-term target is to increase the total number of parking spaces with charging infrastructure in Hong Kong to around 200 000 by mid-2027, including around 20 000 public chargers, of which around 2 000 will be fast chargers. The overall charging infrastructure will be capable of supporting over 300 000 EVs.

In the Chinese Mainland and Hong Kong, the e-PC technology has matured, and the trend of popularisation is irreversible. Private market forces already dominated the green transition of PCs. Going forward, the Government will support the green transformation of private cars by focusing on expanding the supporting infrastructure. In future, we will make good use of market forces through policy guidance, to build a public charging network with fast chargers as the backbone. The target is to increase the number of fast chargers to 4 000 by 2030, supporting around 200 000 EVs. The number of fast chargers is expected to

1. The percentage of EVs among first registered vehicles.

further increase to around 10 000 by 2035, supporting around 500 000 EVs, facilitating PC owners while also underpinning the overall popularisation of e-CVs.

Beyond developing the charging network, we will also explore solutions to the inconsistency in EV charging standards between the Chinese Mainland and Hong Kong by launching a pilot scheme for the ChaoJi charging standard, collaborate with tertiary institutions to promote the continuing education and provide training of EV mechanics and maintenance personnel, and push forward the construction of EV battery recycling facility. We will also make preparation for the legislation on the producer responsibility scheme (PRS) on EV batteries and we will promote green research on battery recycling.

EVs represent an emerging industry and commodity, and China's EV industry leads globally in both scale and innovation. The Environment and Ecology Bureau will provide policy support and coordination to enterprises seeking to promote EVs in Hong Kong. We will leverage Hong Kong's status as an international fintech hub and also a "bridgehead" for global expansion to help the EV industry and technology go global, and to promote the popularisation of EVs worldwide.

### Development of Megawatt-Level Charging Technology

- Megawatt-level charging technology is a new development addressing the rapid charging demands of EVs, primarily serving heavy-duty EVs such as electric trucks and public transport vehicles. For instance, BYD's "Megawatt Flash Charge" technology claims to restore a 400-kilometre range with just five minutes of charging. This significantly reduces EV charging time, narrowing the gap with refuelling times for conventional fuel-propelled vehicles.
- Even if the rated output power of the charger reaches an extremely high level, the actual charging time still depends on whether the EV's battery can withstand such a high charging power. Notwithstanding this, with the continuous development of relevant technologies, the charging time of EVs may eventually be comparable to, or even shorter than, the time required for refuelling.





# Summary of the Updated Version of the Hong Kong Roadmap on Popularisation of Electric Vehicles

## Vision



## Policy Promotion



### Coordination

Develop a comprehensive electric vehicle (EV) charging network through a high-level inter-bureaux/departmental working group and market forces



### R&D Trials

New Energy Transport Fund to subsidise trials of new energy commercial vehicles; Green Tech Fund to fund R&D of green technologies including EV projects



### Government-led

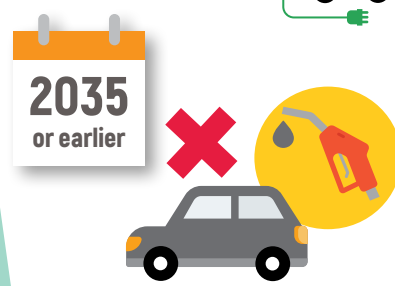
- ★ Lead by examples in adopting EVs
- ★ Update technical guidelines



### Regional Collaboration

Help our Country's innovative charging technology "bringing in and going global" through the ChaoJi trial

## Electric Private Cars



**Cease new registration of fuel-propelled PCs, including hybrid vehicles**



### Technological Advancement

E-PC technology is mature, and future development will be market-driven. The Government will focus on improving supporting infrastructure to facilitate users



### Improving Infrastructure

Build a public charging network with fast chargers as the backbone; provide maintenance training, and establish battery recycling facilities



### Facilitating Car Owners

Improve charging information platform and promote more payment methods to facilitate car owners

## Electric Commercial Vehicles

**Taking a pragmatic and gradual approach to promote application**

### Types reaching large-scale application

#### Franchised Buses

- ★ \$180 million electric single-deck bus trial scheme
- ★ Subsidise franchised bus operators to purchase about 600 electric buses

#### Taxis

- ★ Provide 50 dedicated fast chargers for electric taxis
- ★ Subsidise taxi owners to purchase 3 000 electric taxis
- ★ Introduce a \$50 million subsidy scheme for electric wheelchair-accessible taxis

#### Van-type Light Goods Vehicles and Motorcycles

- ★ Identify more models and improve the charging network to drive market penetration

### Types not yet reached large-scale application

#### Setting up working group

- ★ Facilitate the introduction of more EV models suitable for use in Hong Kong

#### Exploring relaxation of gross vehicle weight

- ★ Introduce more models to fit operational needs

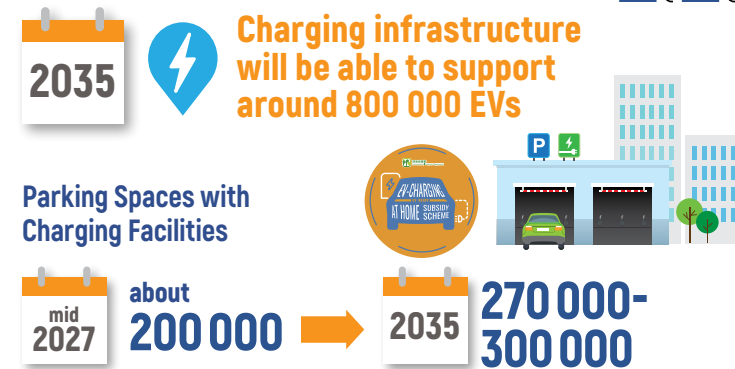
#### Building a public charging network with fast chargers as the backbone

- ★ Provide large charging bays at fast charging stations

#### Charging Network

- ★ Work with power companies to explore ways to optimise Hong Kong's charging network infrastructure and consider introducing time-of-use electricity tariffs for EV charging

## Charging Network



### Fast Public Charging Network

**2035** around **10 000** fast chargers to support around **500 000** EVs

- ★ \$300 million Fast Charger Incentive Scheme
- ★ Gradual conversion of petrol filling stations (PFSs) into fast charging stations
- ★ Retrofit PFSs with fast chargers
- ★ Implement fee-paying for EV charging services in government car parks to promote marketisation
- ★ Promote the wider use of EVs and provide EV charging facilities when planning new development areas
- ★ \$20 million fast charger scheme dedicated for commercial vehicles
- ★ Provide support to the franchised bus operators for opening up the charging facilities in bus depots for the use of the general public
- ★ Support the development of alternative charging methods

### Charging Standard

- ★ Install quick charging facilities compliant with GB and IEC standards near the Hong Kong-Zhuhai-Macao Bridge Hong Kong Port
- ★ Set up a working group to prepare for ChaoJi trial

## Maintenance and Personnel Training



**Compiled Guidelines**  
Practice Guidelines for EV Maintenance

### Maintenance and Training

Offer professional EV maintenance training courses to mechanics



## Batteries Recycling

### Promoting Recycling

**2026**



The first large-scale EV battery recycling facility expected to commence operation, turning retired batteries into recycled black mass, promoting the development of green industries



### Preparing for Legislation

To consult the Legislative Council on the PRS on EV batteries

## Current Achievements



Number of EVs

Increased by **4-fold** over four years to over **140 000 units**



Parking Spaces with Charging Facilities

Increased by **4-fold** over four years to over **140 000 units**



Public Chargers

Increased by **2.5-fold** over four years to nearly **16 500 units**

## Promotion and Trials

The New Energy Transport Fund has subsidised

**more than 220 EV trials**

involving funding support exceeding \$174 million



## Private Charging Network

### ★ Over 95 000 parking spaces

have been approved under the gross floor area concessions for private development projects

- ★ Through the \$3.5 billion "EV-charging at Home Subsidy Scheme", **over 77 000 parking spaces** have been equipped with EV charging-enabling infrastructure



## Public Charging Network

- ★ Three plots of land have been sold

**early 2026**

with two fast charging stations expected to commence operation

**2028**

with a target of providing 3 000 fast chargers



**Target**

**Before 2050**



**Zero Vehicular Emissions** to support the **Carbon Neutrality Goal**



## Chapter 1



# DEVELOPMENT OF ELECTRIC VEHICLE TECHNOLOGY

- 1.1 Looking back over the past decade, global EV development has progressed from a “niche experiment” to a “popularisation” phase, with leaps and bounds in technology, market, and products.

### Market Scale: From Niche to Mainstream

- 1.2 The global EV market has experienced explosive growth over the past decade and has become the core of the automotive industry. A decade ago, annual global sales numbered merely a few hundred thousands, representing a negligible market share. According to the data from the International Energy Agency, global EV sales exceeded 17 million units in 2024, accounting for over 20% of the total global automotive sales. China now stands as the world’s largest and most dynamic market, with EVs accounting for nearly half of all domestic car sales in 2024. By the first half of 2025, light-duty EVs had captured 23% of its global sales. The European market is also experiencing steady growth, while some emerging markets in Southeast Asia and South America are also beginning to show rapid growth.

### Batteries and Range: Enhanced Energy Density and Reduced Costs

- 1.3 Batteries are the core of EVs. Battery technology directly determines driving range and cost. Lithium-ion batteries are the mainstream choice now, though technological focus is shifting from enhancing the energy density of ternary lithium batteries (such as nickel-manganese-cobalt, NMC) towards expanding the application of lower-cost and safer lithium iron phosphate (LFP) batteries. Solid-state battery technology is also advancing rapidly and is also expected to be commercialised within the next few years, holding out promises of achieving higher energy density and enhanced safety for EV batteries.
- 1.4 Regarding driving range, mainstream EV models have generally increased from 150 to 250 kilometres (km) a decade ago to 400 to 700 km today. Cutting-edge laboratory technologies (such as solid-state batteries) target ranges exceeding 800 km.
- 1.5 Cost-wise, the substantial reduction in battery pack prices is pivotal to the popularisation of EVs. Throughout 2024, global battery pack prices continued to decline, with prices in the Chinese market falling by around 30% and in European and

American markets by 10 to 15%. Driven by technological advancements and increased production volume, lithium-ion battery costs have decreased by around 97% over the past three decades.

### Charging Speed and Infrastructure: Alleviating Range Anxiety

- 1.6 Charging convenience is a key factor influencing consumers' decision to purchase EVs. The associated charging-enabling infrastructure and technology are developing rapidly, with direct current fast charging becoming the mainstream public charging solution and charging power continuously increasing. Currently, supercharging technology supporting 250kW or higher is available in the market. Charging for 10 to 15 minutes can add hundreds of kilometres of range, significantly alleviating drivers' range anxiety and enhancing the user experience.

### Vehicle Models: From Single to Comprehensive Coverage

- 1.7 Today's e-PC market offers an exceptionally diverse product portfolio. Model types and coverage span virtually all categories – from compact cars, sedans to sport utility vehicles (SUVs) and sports cars – essentially meeting the needs of different consumers. Particularly in the Chinese Mainland market, multiple affordable EVs dominated the sales chart in the first-half 2025, signalling the market’s rapid shift towards serving practical, mass-market users.

### Price and Affordability: From Premium to Competitive

- 1.8 The purchase cost of e-PCs has significantly decreased, offering price advantages that enable direct competition with fuel-propelled vehicles in some markets. With declining battery costs, economies of scale, and intensified competition, the EV prices continue to fall. In China, the largest market, approximately two-thirds of EVs sold in 2024 were priced below comparable conventional fuel-propelled models. However, price competitiveness varies by regions. In Germany and the United States, the average selling price of EVs remains 20% to 30% higher than that of fuel-propelled equivalents. In Hong Kong, the average price before tax of e-PCs has also begun to decline markedly, gradually approaching the average price of fuel-propelled vehicles.



## Heavy-duty EVs Remain under Development

1.9 Although the progress of EVs over the past decade, particularly the comprehensive improvements in e-PCs, has transformed them from a “future technology” into a mature, viable and rapidly growing mainstream consumer product, the development of heavy-duty EVs remains comparatively slower than that of PCs. Battery range, charging time, model availability and pricing remain challenges that must be overcome for the heavy-duty EV market to achieve scale in the short to medium term.

## Hong Kong can Facilitate the Global Expansion of China’s EV Industry

1.10 China has witnessed remarkable advancements in EV technology and industry. In the first half of 2025, China

produced 72% of the world’s light-duty EVs. In 2025, Chinese new energy vehicle sales accounted for around 68% of the global market share. China has emerged as a significant exporter of EVs, securing leading market shares in emerging regions such as Southeast Asia and South America, etc. In September 2025, Chinese automotive brands achieved a historic 7.4% market share in Europe’s passenger vehicle market. Hong Kong should seize the opportunities presented by our Country’s rapid advancement in the EV industry. The Environment and Ecology Bureau will provide policy support and coordination to enterprises seeking to promote EVs in Hong Kong. Leveraging Hong Kong’s position as an international fintech hub, it will serve as a “bridgehead” for global expansion, facilitating the overseas growth of the EV industry while advancing the global popularisation of EVs.









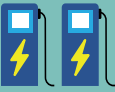


## Chapter 2

# PROGRESS MADE

2.1 The Government published the Hong Kong Roadmap on Popularisation of Electric Vehicles in 2021 and the Green Transformation Roadmap of Public Buses and Taxis in 2024, outlining a series of measures to promote EV adoption in Hong Kong. Current initiatives and progress are summarised below:-

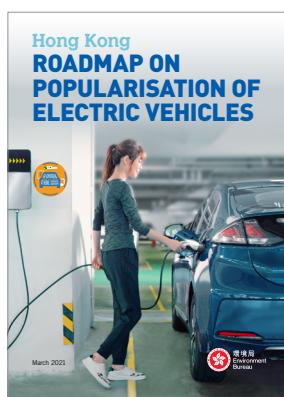
	Current Measures	Progress	
<b>Financial Incentives</b> 	First Registration Tax (FRT) concession for e-PCs including the “One-for-One Replacement” Scheme	Ongoing	Cumulative FRT concession exceeding \$30 billion in total over the past ten years
	Full FRT waiver for e-CVs and profits tax deduction	Ongoing	Cumulative FRT concession exceeding \$100 million in total over the past ten years
	Lower licence fees for e-PCs compared to conventional fuel-propelled PCs	Ongoing	Licence fees being adjusted in five phases from 2025 onwards
<b>EV Promotion and Trials</b> 	The New Energy Transport Fund subsidies trials of new energy commercial vehicles	Ongoing	Approved funding of \$234 million to support over 290 new energy transport projects, including about 220 EV trials involving \$174 million of subsidy
	Allocation of \$400 million to the Green Tech Fund to support research and development (R&D) and application of carbon reduction technologies, including EV projects	Ongoing	Five EV-related projects have been approved, involving local universities, designated public research institutions and private enterprises, with a total funding of nearly \$18 million. Research projects cover areas such as EV battery recycling and charging network development
	A \$135 million electric taxi (e-taxi) subsidy scheme has been launched to procure 3 000 e-taxis; and a \$470 million electric bus (e-bus) subsidy scheme is underway to procure about 600 e-buses	Ongoing	By the end of 2025, over 2 100 taxi owners have accepted the subsidy quotas; franchised bus operators have committed to ordering a total of 625 e-buses under the e-bus subsidy scheme
	A Dedicated 100% Loan Guarantee Scheme for Battery Electric Taxis has been launched to encourage taxi owners to replace their LPG or hybrid taxis with e-taxis	Ongoing	As of December 2025, 667 loan applications have been approved
	Implementation of a trial scheme for two rounds of electric public light buses (e-PLBs) with \$80 million earmarked for the scheme	Ongoing	The first round of trials (involving two e-PLBs) has been completed. The second round of trials (involving 13 e-PLBs) has commenced since February 2025 progressively
	Rolled out a \$180 million trial scheme on single-deck e-bus	Completed	36 e-buses completed trials, with 23 still in operation. Trial results indicate that single-deck e-buses offer comparable passenger carrying capacity and driving performance to conventional single-deck buses
	Provision of 50 dedicated fast chargers for e-taxis	Ongoing	12 fast chargers on Lantau Island and in Sai Kung have been put into operation and the tenders for the installation of the remaining 38 chargers has been awarded
<b>Supporting Infrastructure</b> 	Promoting the training for EV maintenance mechanics	Ongoing	By the end of 2025, six institutions offering ten relevant courses, with approximately 1 100 persons having received training
	Formulating the legislation on the PRS for EV batteries	Ongoing	The first large-scale EV battery recycling facility is expected to commence operation in the first half of 2026. The Government will consult the Panel on Environmental Affairs of the Legislative Council for the PRS for EV batteries within 2026
	Launch a pilot scheme adopting the ChaoJi charging standard to provide practical solutions for the sustainable development of EVs in Hong Kong, and to facilitate our Country's innovative ChaoJi technology “bringing in and going global”	Ongoing	A cooperation arrangement to advance the interconnectivity of charging facilities in the Greater Bay Area was signed with the National Energy Administration in October 2025, facilitating the development of the ChaoJi charging demonstration station in Hong Kong

	Current Measures	Progress	
<b>Private Charging Network</b> 	Provide gross floor area concessions for car parks fully equipped with EV charging-enabling infrastructure in private development projects	Ongoing	By the end of 2025, over 95 000 parking spaces have been approved, with around 55 000 already equipped with EV charging-enabling infrastructure
	Allocation of \$3.5 billion to launch the “EV-charging at Home Subsidy Scheme”	Ongoing*	By the end of 2025, over 77 000 parking spaces were equipped with EV charging-enabling infrastructure
<b>Public Charging Network</b> 	Progressively convert some of the PFSs into fast charging stations	Ongoing	Three plots of land were sold, with two of the fast charging stations expected to commence operations in early 2026
	Mandate fast charging stations to provide charging bay for large e-CVs	Ongoing	Providing one fast charger for large e-CVs at the Kowloon Bay fast charging station site that has been sold, with plan to install over 10 fast chargers for medium and large-sized e-CVs to be provided in the six additional sites
	Retrofit PFSs with fast chargers	Ongoing	Over 70 fast chargers have been approved for installation
	Provide EV charging facilities at about 7 000 additional government building parking spaces	Ongoing	By the end of 2025, over 6 800 charging facilities have been installed
	Implement fee-paying EV-charging services in government car park to promote the marketisation of EV charging services and foster market competition	Completed	Completed about 1 600 chargers in government car parks to adopt energy-based fee-charging mode
	Provide support to the franchised bus operators for opening up the charging facilities in bus depot for the use of general public	Ongoing	The Government has provided policy support to allow franchised bus operators to open up about 300 EV charging facilities in bus depots and parking areas across districts for the use of the general public during daytime where appropriate. Following the completion of relevant lease modifications, these facilities are expected to be progressively opened up from 2026 onwards
	Launch a \$300 million Fast Charger Incentive Scheme	Ongoing	Since the scheme's launch in July 2025, over 430 fast chargers have been granted approval-in-principle. 20 fast chargers are in operation

\* application period closed on 31 December 2023

## EV Penetration Rate

2.2 Since the announcement of the Hong Kong Roadmap on Popularisation of Electric Vehicles in 2021, the number of EVs in Hong Kong has increased by more than fourfold from 28 000 in 2021 to around 149 000 in 2025. Among all vehicle types, PCs have seen the most significant growth, with the penetration rate soaring from 24% in 2021 to over 70% today. This means that currently, more than seven out of every 10 first registered PCs are EVs, placing Hong Kong among the top of the world in terms of growth rate. Compared to 2019, greenhouse gas emissions related to the use of PCs have decreased by around 4% in 2024, equivalent to the carbon absorption of more than 3.2 million trees in one year.



2.3 For vehicle classes apart from PCs, in 2021, Hong Kong had no registered e-taxis and only 39 registered e-public buses. By the end of 2025, there were 988 registered e-taxis and 150 registered e-public buses in Hong Kong. It is estimated that about 3 000 e-taxis and 700 e-buses will be introduced by 2027. Regarding other vehicle classes, e-LGVs exhibit a higher penetration rate. In 2025, it has reached about 30%, representing a 28-times increase as compared to the rate in 2021.

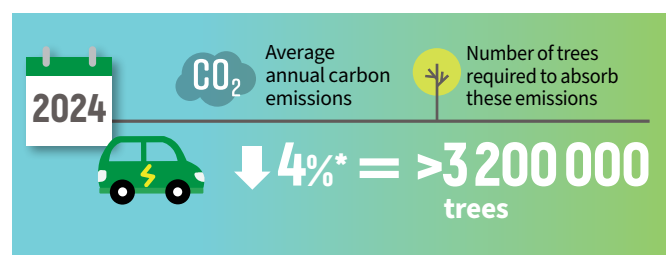


Figure 1: Number of Electric Vehicles in Hong Kong

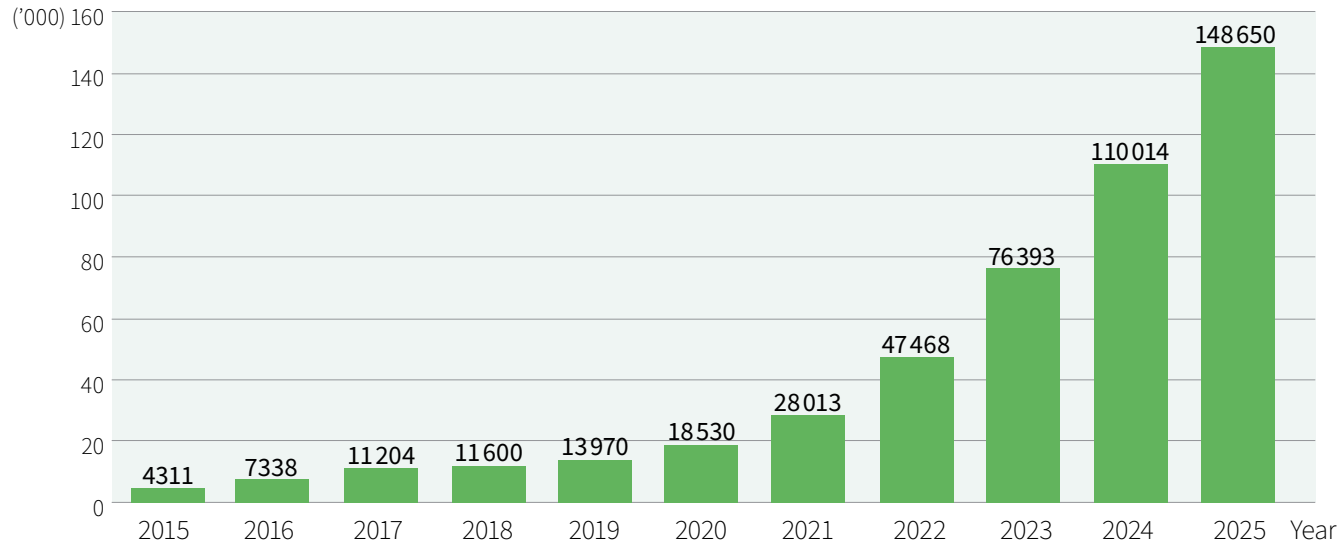
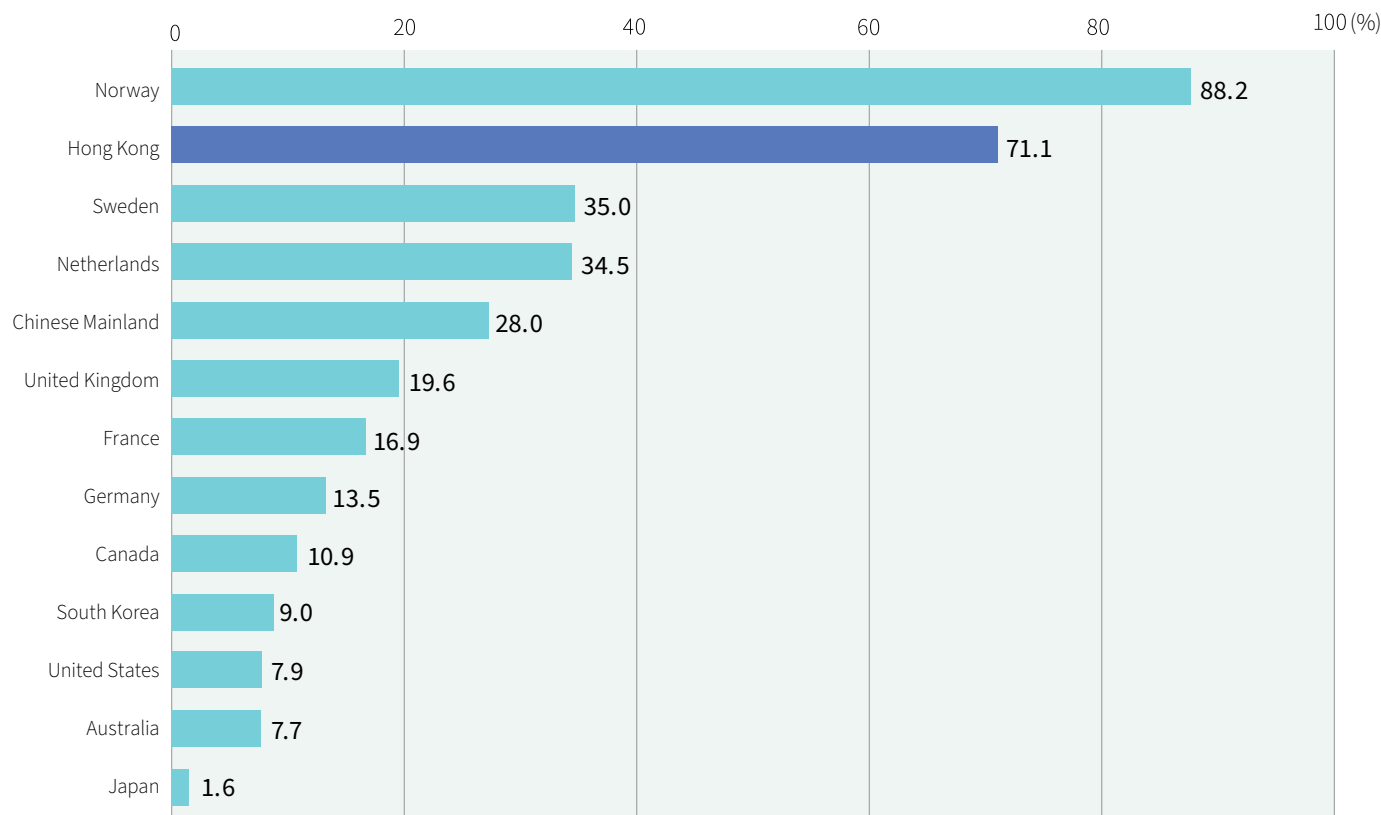


Figure 2: Battery Electric Vehicle Penetration Rates in Major Economies for 2024

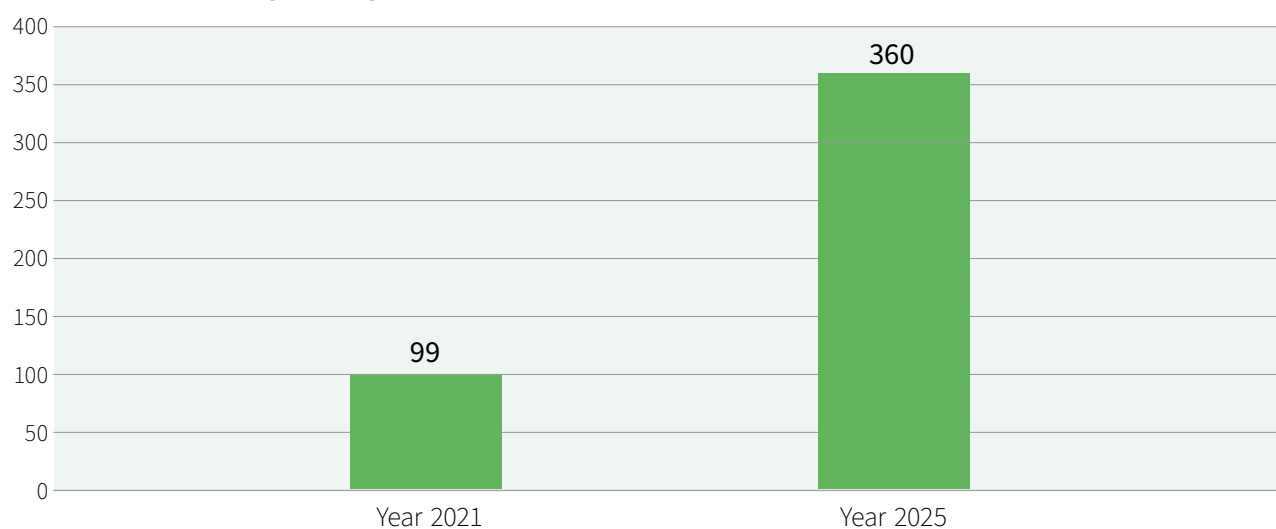




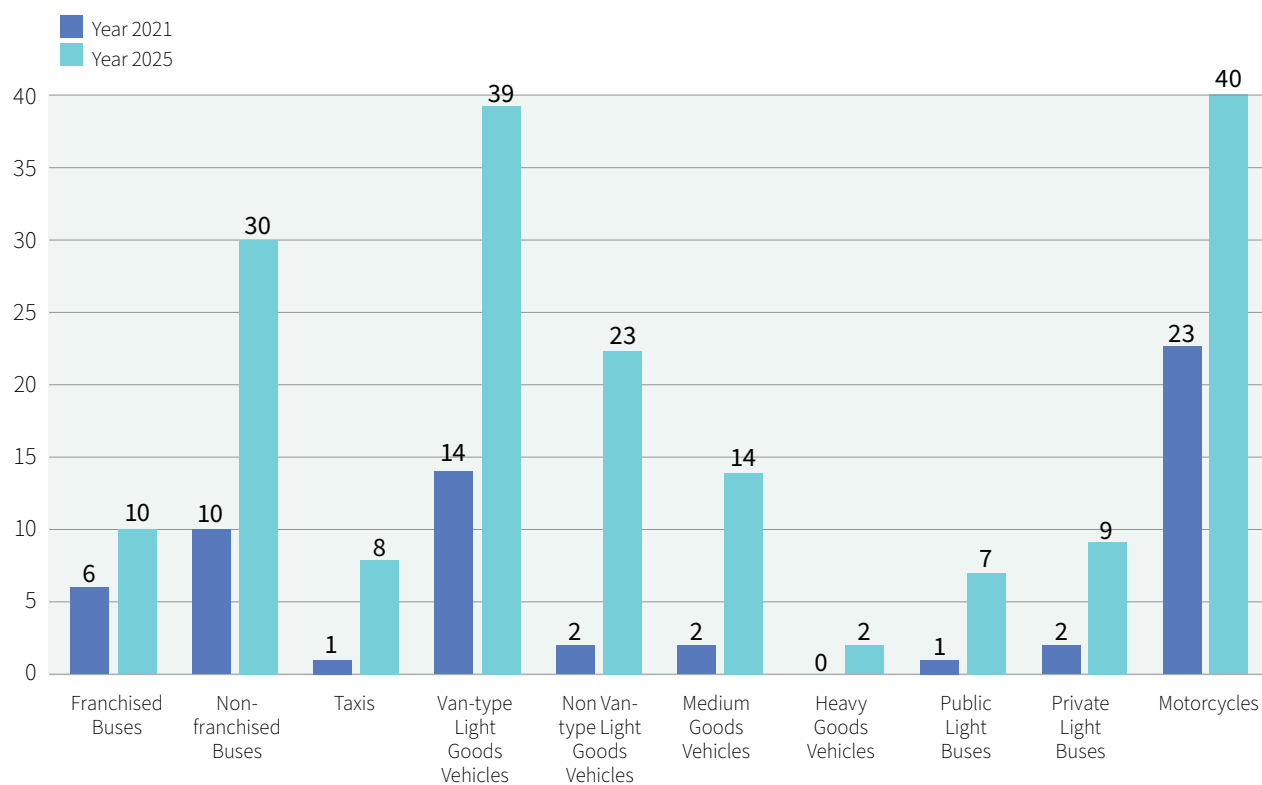
## Availability of EV Model

2.4 The number of EV models type-approved by the Transport Department increased from approximately 160 models in 2021 to over 530 models in 2025, primarily e-PCs.

**Figure 3: Number of Electric Private Car Models Type-Approved by the Transport Department**



**Figure 4: Number of Electric Commercial Vehicle Models Type-Approved by the Transport Department**



## Charging Network

2.5 In 2021, Hong Kong had only around 28 000 parking spaces equipped with EV charging-enabling infrastructure. This number increased since 2021 to over 140 000 in 2025, representing a rise of over 4.3 times. The number of public chargers increased from 4 700 in 2021 to around 16 440 in 2025, representing a 2.5-fold increase. By the end of 2025, the overall charging infrastructure is sufficient to support around 230 000 EVs.



## Overview of Global EV Development

The global transport sector is accelerating its transition towards electrification to reduce carbon emissions and enhance energy efficiency. In 2024, global sales of new EVs surpassed 17 million units, marking a 25% increase from the previous year and capturing over 20% of the market share. The total number of EVs has tripled since 2021, reaching nearly 58 million units. This represents 4% of all passenger vehicles and replaces over 1.3 million barrels of oil daily. Growth patterns vary across regions, with China leading the market in 2024 with sales exceeding 11 million units, accounting for approximately two-thirds of the global market share.

Despite countries having previously set targets for achieving zero vehicular emissions, policy adjustments continue

to emerge. Copenhagen abandoned its original 2025 carbon neutrality goal in 2022. In September 2025, the Canadian government announced a suspension of its mandatory target requiring 20% of new vehicle sales to be electric or plug-in hybrids from 2026. The European Union in December 2025 has scrapped its 2035 ban on internal combustion engine vehicles, opting instead for a 90% fleet emissions reduction target. The United States has withdrawn its goal of achieving 50% EV sales by 2030, frozen unused charging infrastructure funds, and terminated the federal EV tax credit in September 2025.

On the other hand, China announced its dual carbon goals in 2020 – achieving peak carbon emissions by 2030 and carbon neutrality by 2060 – and has accelerated progress over the past five

years. By the end of 2025, new energy vehicles accounted for 51.8% of China's new vehicle sales. Our Country is simultaneously building the world's largest charging network, covering over 20 million charging points. At the United Nations Climate Change Summit in September 2025, President Xi Jinping declared that new energy vehicles would become the mainstream of new vehicle sales by 2035. China will continue to leverage its robust supply chain advantages across various critical segments of EV developments (from vehicle manufacturing to battery technology and charging infrastructure) to achieve its dual carbon goals.

## Chapter 3

# ELECTRIC PRIVATE CARS



The Popularisation of Electric Private Cars

3.1 Currently, on average, more than seven out of every 10 first registered PCs are EVs. By the end of 2025, the total number of e-PCs in Hong Kong exceeded 140 000. Should this growth trend persist, it is estimated that by 2030, the number of e-PCs in Hong Kong could surpass 290 000, with over 45% of PCs being EVs. By 2035, the number of e-PCs is projected to approach 500 000. The penetration rate of new e-PCs has continued to climb in recent years, attributed to the significant improvements in various factors that customers focus on, including vehicle price, model selection, vehicle performance, and charging infrastructure.

Price and Availability of Model

3.2 With advances in battery technology, production costs are decreasing. The average taxable value (i.e. vehicle price before tax) of first registered e-PCs decreased from around \$371,000 in 2021 to around \$285,000 in 2025 – a reduction exceeding 23%. This vehicle price before tax is comparable to that of fuel-propelled/hybrid PCs (around \$283,000).

Figure 5: Distribution of Vehicles in Hong Kong in 2025

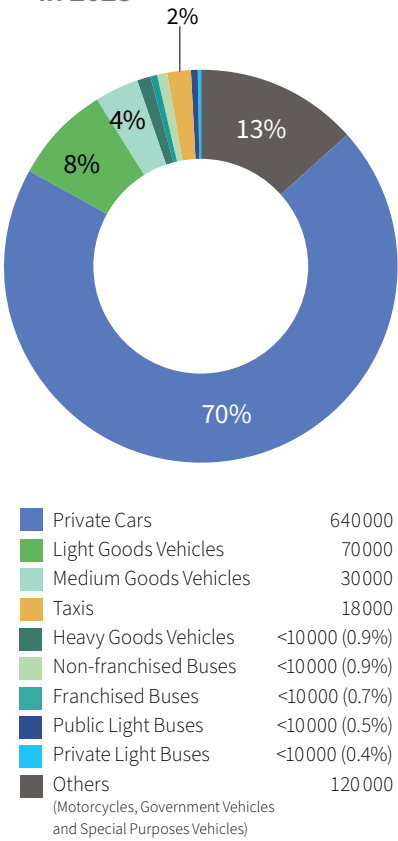
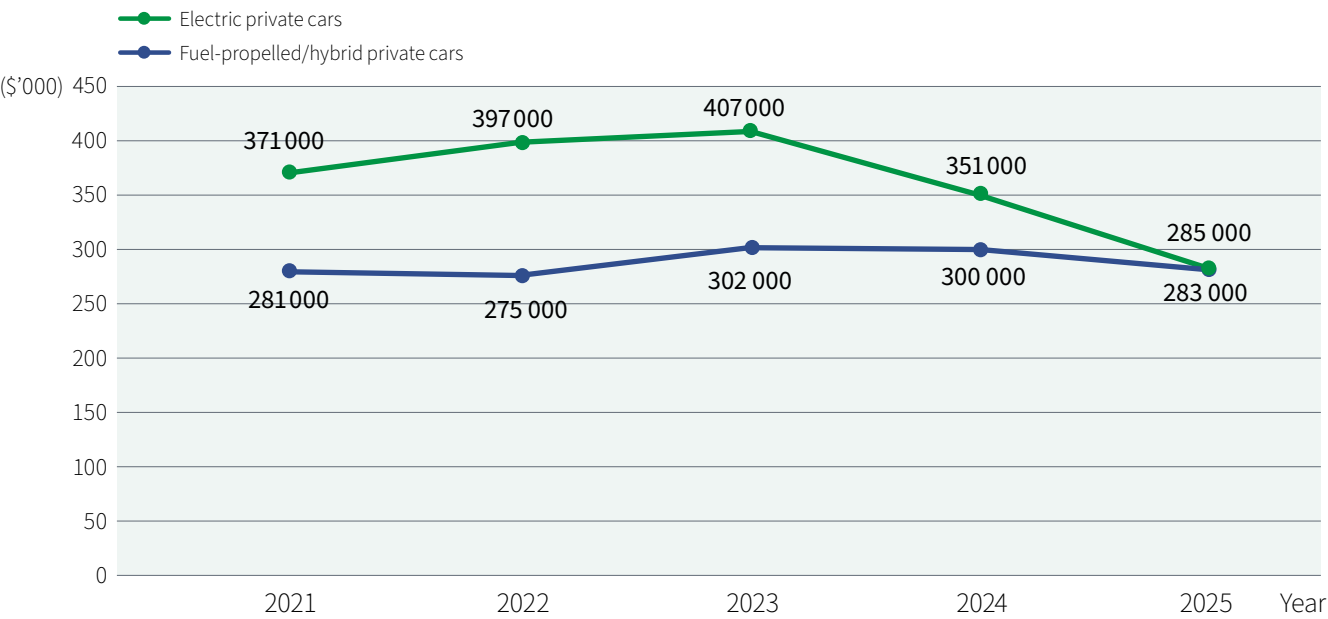


Figure 6: Average Vehicle Price Before Tax of First Registered Private Cars





3.3 The number of e-PC models with type approvals from the Transport Department increased from around 100 in 2021 to around 360 in 2025. E-PCs with a vehicle price before tax below \$400,000 rose from about 30 models in 2021 to around 190 models in 2025. The number of e-PC manufacturers has also risen from 17 in 2021 to 54 in 2025. Over 70% of first registered e-PCs are manufactured in the Chinese Mainland, reflecting the growing competitiveness of Chinese Mainland brands in Hong Kong.

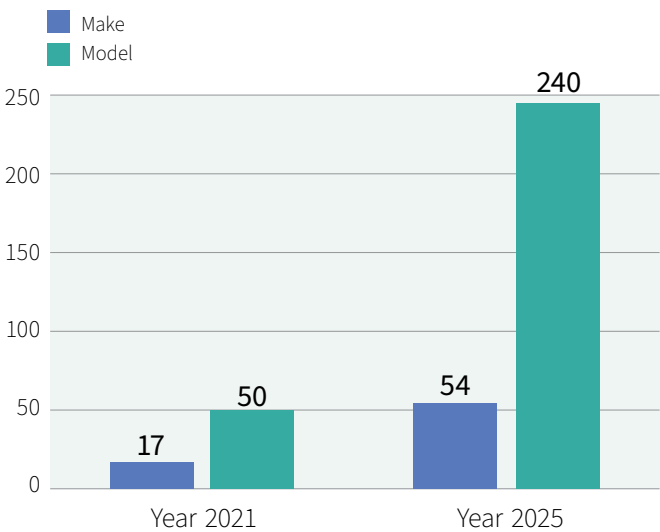
Vehicle Performance

3.4 The performance of EVs, including battery safety, lifespan, driving range, and charging costs, are crucial factors for consumers when selecting an EV. The battery is the core of an EV. Research indicates that, with appropriate usage, EV batteries can achieve a lifespan exceeding 20 years, outperforming conventional fuel-propelled vehicles. The average driving range of e-PCs doubled from around 200 km in 2013 to over 400 km in 2025, sufficient for seven round trips between Tsuen Wan and Chai Wan. Compared to fuel costs for conventional fuel-propelled vehicles, charging costs for e-PCs are significantly lower, potentially by nearly 90%.

Future Development

3.5 Some overseas countries and cities are adjusting policies to slow down the pace of vehicle electrification. These shifts are partly due to the prevailing global economic environment. They also reflect the highly complex nature of the vehicle electrification transition. On 23 April 2025, President Xi Jinping stated at the Leaders Meeting on Climate and the Just Transition, “Regardless of how the international situation evolves, China’s proactive efforts to address climate change will not slow down, its commitment to fostering international cooperation will not waver, and its

Figure 7: Electric Private Cars Sold



practice of building a community with a shared future for mankind will not cease.” With our Country’s determination, Hong Kong will continue to promote the popularisation of EVs and strive to achieve zero vehicular emissions before 2050, aiming to achieve carbon neutrality. Our target to cease new registration of fuel-propelled PCs, including hybrids, in 2035 or earlier remains unchanged.

3.6 In the Chinese Mainland and Hong Kong, e-PC technology has matured, and the trend of popularisation is irreversible. Private market forces now dominate the green transformation of PCs. Against this backdrop of increasingly powerful market forces, the Government will primarily focus on expanding the supporting infrastructure (including charging network, maintenance and repair, and battery recycling), and improving charging information platform, and promoting more payment methods, to support the green transition of PCs.



**Chapter 4**

# **ELECTRIC COMMERCIAL VEHICLES**



4.1 The global electrification of CVs remains slow. According to the data of International Energy Agency, only 7% of the light-duty CVs sold globally in 2024 were EVs (600 000 units), with China accounting for approximately 450 000 units (around 75%). The electrification of medium and heavy-duty CVs is progressing even more slowly; in the same year’s sales data, less than 3% were EVs (90 000 units). In Hong Kong, the penetration rate of e-CVs is currently only around 19% in 2025. Compared to e-PCs, the electrification development stage for CVs differs significantly. Particularly for heavy-duty e-CVs, factors such as higher purchase costs than their diesel counterparts, limited driving range, lower loading capacity, and lengthy charging times fail to meet the operational needs of many CV owners. Drawing on the development of e-PCs in Hong Kong over the past decade, the electrification of CVs remains still in its early stages. We must pragmatically create more favourable conditions for development, addressing the specific challenges of CV electrification.

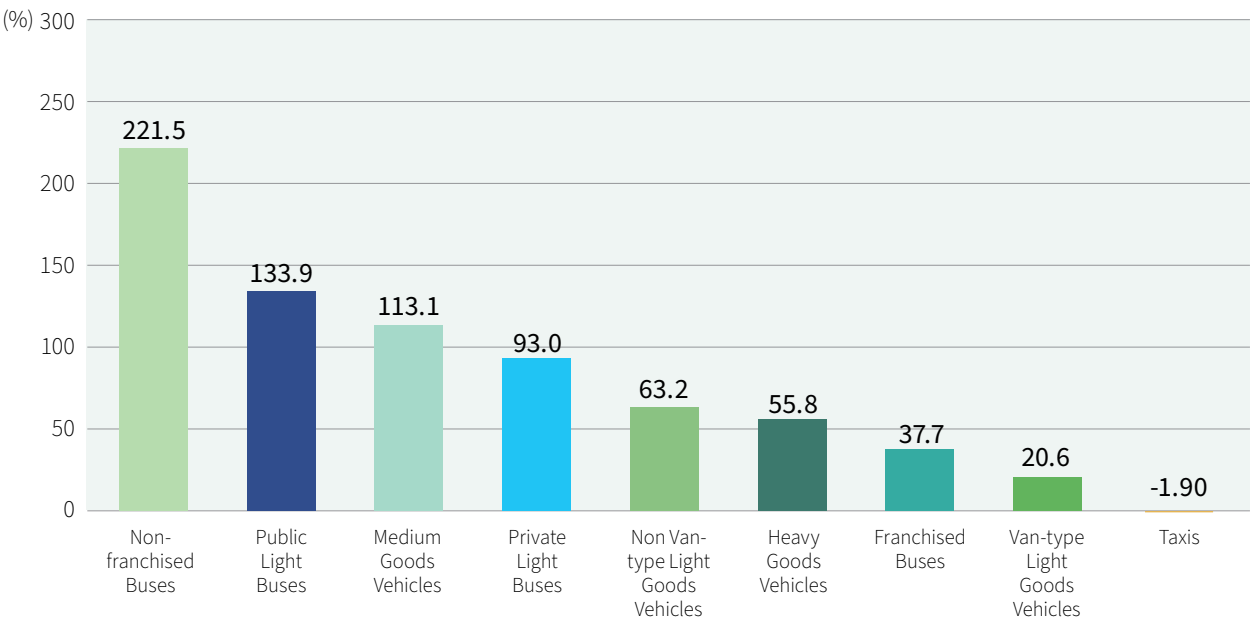
High Initial Purchase Costs

4.2 According to the data of International Energy Agency, the initial cost of battery-powered electric trucks in 2024 is two to three times that of diesel trucks. In Hong Kong, the price of some e-CVs, such as non-franchised buses, is currently around 222% higher than conventional diesel vehicles.

Battery Technology yet to Reach Maturity

4.3 Constrained by battery density and capacity, the current driving range of e-CVs is generally still lower than that of diesel vehicles, while charging times are significantly longer than diesel vehicles refuelling. The driving range further decreases when vehicles are fully loaded or travelling uphill, a problem particularly pronounced in Hong Kong’s hilly terrain. Moreover, the substantial size of batteries not only occupies cargo space but also increases the overall weight of EVs. With local CV load standards remaining unchanged, the load-carrying capacity of some CVs is consequently reduced, impacting efficiency and cost-effectiveness.

Figure 8: Average Electric Commercial Vehicle Premium before Tax (based on 2025 first registration vehicle data)



## Vehicle Models and Dimensions

4.4 Hong Kong faces unique challenges in promoting the adoption of e-CVs. For instance, certain specialised vehicle models and dimensions in Hong Kong's commercial fleet – such as double-deck buses and PLBs – are rare or non-existent elsewhere. This necessitates bespoke solutions from vehicle manufacturers, inevitably driving up costs. Furthermore, Hong Kong's relatively small automotive market provides little incentive for manufacturers to establish new production lines specifically for us.

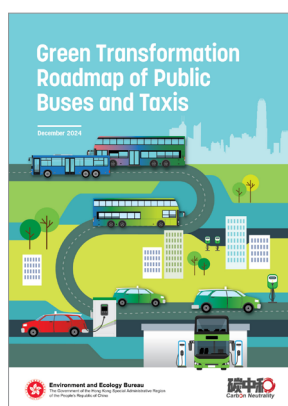
## E-CVs Reaching Scale Application

4.5 CVs encompass many vehicle types. Although the overall electrification of CVs remains in its early stages, certain types of e-CVs have achieved a relatively mature level of market application and they can meet operational requirements, reaching a stage of large-scale application. We will adopt a pragmatic approach to progressively promote the application of these vehicle types in Hong Kong.

## Types Reaching Large-scale Application

### Franchised Buses

4.6 There are approximately 6 000 registered franchised buses in Hong Kong, of which about 96% are double-deck buses. In 2024, the Government published the Green Transformation Roadmap of Public Buses and Taxis, announcing a scheme to subsidise franchised bus operators in purchasing about 600 e-buses. To further assist franchised bus operators in their green transition, the Government will support their installation of charging facilities at new or existing bus depots. Policy support has also been provided to allow franchised bus operators, where appropriate, to open up about 300 EV charging facilities in bus depots and parking areas across district for the use of the general public during daytime. These charging facilities will be particularly beneficial for heavy-duty e-CVs, as there are currently limited charging bays capable of



accommodating the entry, exit and parking of such large vehicles. Furthermore, space will be reserved for charging-enabling infrastructure dedicated for franchised buses at new public transport interchanges or bus terminals.

### Taxis

4.7 There are approximately 18 000 taxis in Hong Kong, of which over 1 000 (approximately 6%) are EVs, with the remainder being liquefied petroleum gas (LPG)/petrol/hybrid vehicles (approximately 94%). Currently, there are eight models of e-taxi type-approved by the Transport Department, two of which are wheelchair-accessible. In its 2024 Green Transformation Roadmap of Public Buses and Taxis, the Government announced a subsidy scheme for the purchase of 3 000 e-taxi by taxi owners. The Government plans to introduce a \$50 million subsidy scheme for electric wheelchair-accessible taxis in 2026. Progressively replacing ageing LPG taxis can avoid wasting resources.

4.8 The Government is progressively converting PFSs into fast charging stations, in conjunction with the \$300 million Fast Charger Incentive Scheme. Combined with existing charging services in the market, it is believed that the charging needs of Hong Kong's e-taxi can be met. To assist e-taxi in rapid recharging, the Government plans to install 50 dedicated fast chargers for e-taxi by the end of 2027. 12 dedicated fast chargers on Lantau Island and in Sai Kung are already fully operational and temporarily free of charge. The tender for the remaining 38 dedicated fast chargers has been awarded. Along with the general trend of marketisation of charging services, fee-paying services for dedicated fast chargers for e-taxi will be imposed when the first batch of PFS-converted fast charging station becomes operational.





### Van-type Light Goods Vehicles

4.9 Hong Kong has approximately 50 000 van-type LGVs (commonly known as vans), of which about 40 models are currently electric vans with type approvals by the Transport Department. Electric van-type LGVs now largely meet operators' requirements, with market penetration rising from 1.5% in 2021 to 38% in 2025. These vans may park in PC parking spaces and share charging networks with e-PCs. Charging convenience will be a key factor for operators adopting electric vans. Building a charging network with fast chargers as its backbone and exploring more model options will help further promote the popularisation of electric vans.

### Motorcycles

4.10 Hong Kong currently has approximately 110 000 registered motorcycles. There are around 40 models of electric motorcycles available with type approvals from the Transport Department, priced similarly to conventional petrol motorcycles after tax on average based on 2025 first registration vehicle data. Electric motorcycles can be charged at public charging stations, incurring lower fuel costs than fuel-propelled models. Battery-swapping electric motorcycles are also available in the market. Although electric motorcycles accounted for only about 6% of first registered motorcycles in 2025, the conditions for further popularisation are beginning to emerge. Raising user awareness of electric motorcycles and enhancing charging convenience will be key drivers for their wider adoption. We will continue to expand the public charging network, improve charging accessibility, and promote the use of electric motorcycles.

### Electric Commercial Vehicles Not Yet Reached Scaled Application

4.11 As e-CV technology remains under development, many CV types available in the local market still fail to meet operators' requirements due to the aforementioned factors, preventing large-scale adoption at this stage. These include goods vehicles, non-franchised buses, and public and private light buses. To address the issue that these e-CVs are not yet ready for large-scale electrification, we will establish a working group in collaboration with the industry to assist

### The market is actively developing a charging network for e-CVs

There is an EV charging service provider partnering with logistics facility operators to offer fast charging delivering up to 240kW for large e-CVs. In particular, one of the sites accommodates lorries up to 12 metres in length, with nearby canteens and vending machines enabling drivers to take rest during charging. The provider has further introduced a smart charging solution featuring automatic vehicle recognition, enabling drivers to charge without the need to open mobile applications, improving customer experience.

in introducing more competitively priced EV models. PLBs will be the initial trial target, with expansion to other vehicle types depending on the results. We will also examine the relaxation of the the gross vehicle weight restrictions, referencing standards from other regions, to facilitate the introduction of more e-CV models. This will foster market competition, drive down prices, and provide CV owners with more choices.

4.12 A convenient fast charging network will accelerate the scale up of e-CVs. We shall continue leveraging market forces to build a charging network with fast chargers as its backbone (details in the next chapter). To facilitate charging for large e-CVs (such as electric coaches, electric medium good vehicles, and electric heavy goods vehicles), we will require the successful bidders in future tenders for fast charging stations to provide charging bays for large vehicles. To assist drivers in locating available large EV chargers, relevant information on large EV charging locations will be disseminated through the Common Spatial Data Infrastructure and the Transport Department's HKeMobility mobile application.

4.13 We also plan to launch a new scheme under the New Energy Transport Fund in 2026 to encourage the industry to install fast chargers with a rated power of at least 240 kW for use by e-CVs.

4.14 To better address the charging needs of e-CVs, we will establish a working group with the two power companies to explore ways to optimise Hong Kong's charging network and explore the establishment of time-of-use (ToU) electricity tariffs for EV charging to reduce charging costs.

### Other Vehicles and Government/Public Sector Fleets

4.15 All new or replacement PCs procured by the Government at present must be EVs, except where operational requirements preclude the use of EVs. Senior government officials will also lead by example by procuring EVs when replacing their official cars. In 2025, all vehicles procured by the Government for senior officials were EVs, totaling 37 vehicles. As electric vans become ready for large-scale adoption, we will review the Government Circular "Green Procurement in the Government" to explore the feasibility of making electric vans a mandatory requirement in future procurement. We will also regularly review whether other

e-CVs can be included in the mandatory procurement scope. Furthermore, to demonstrate the Government's steadfast commitment to advancing the green transition, we will explore promoting the use of appropriate e-CVs in government's public works projects in new development areas. We will continue to push ahead the electrification of the Government fleet to set an example, and persistently encourage public sector to actively adopt EVs.



The background features a series of overlapping green and blue rectangular blocks on the left side, creating a sense of depth. From these blocks, several horizontal lines in shades of green and blue extend towards the right. On the far right, there is a stylized green icon of a three-prong electrical plug.

**Chapter 5**

# **SUPPORTING INFRASTRUCTURE**

# 1. Charging Infrastructure

## Private Charging Network

- 5.1 To promote the provision of EV charging-enabling infrastructure for parking spaces in private residential and commercial building, the Government has introduced two policy measures: (i) the gross floor area concessions to encourage the installation of EV charging-enabling infrastructure in newly built private buildings; and (ii) the “EV-charging at Home Subsidy Scheme”, which subsidises the installation of EV charging-enabling infrastructure in existing private residential car parks. Both measures are progressing well.
- 5.2 By the end of 2025, approximately 95 900 parking spaces had been approved under the gross floor area concessions, with over 55 100 of these spaces having EV charging-enabling infrastructure installed. Under the “EV-charging at Home Subsidy Scheme”, from its launch in October 2020 to the end of 2025, EV charging-enabling infrastructure has been installed in 77 010 parking spaces across approximately 419 residential car parks. Based on the current progress, we anticipate that the total number of parking spaces with EV charging-enabling infrastructure installed under the “EV-charging at Home Subsidy Scheme” will reach the original target of 140 000 by the 2027-28 financial year as scheduled.

## “EV-charging at Home Subsidy Scheme”

The Government launched the “EV-charging at Home Subsidy Scheme” in October 2020, allocating \$2 billion to subsidise the installation of EV charging-enabling infrastructure in existing private residential car parks. The scheme received a positive response. To meet public demand, the Government allocated an additional \$1.5 billion in the 2022-23 financial year, extending the scheme for four years until the 2027-28 financial year. The application period for the scheme closed on 31 December 2023.

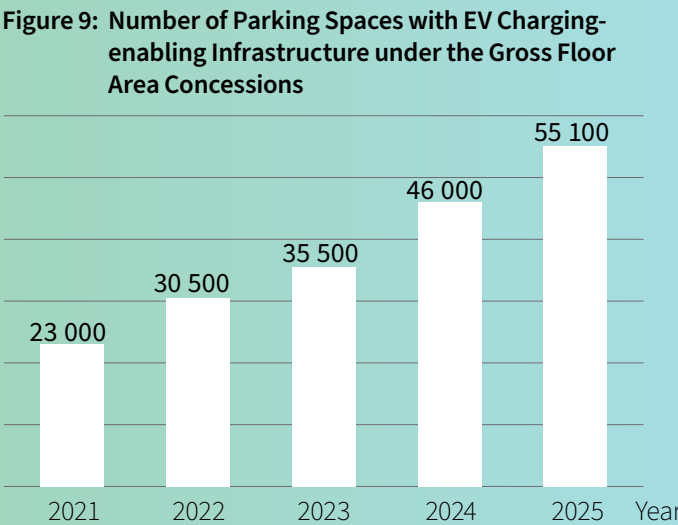
It is estimated that the \$3.5 billion funding under the “EV-charging at Home Subsidy Scheme” will enable the installation of EV charging-enabling infrastructure for approximately 140 000 parking spaces in about 700 car parks.



## Gross Floor Area Concessions

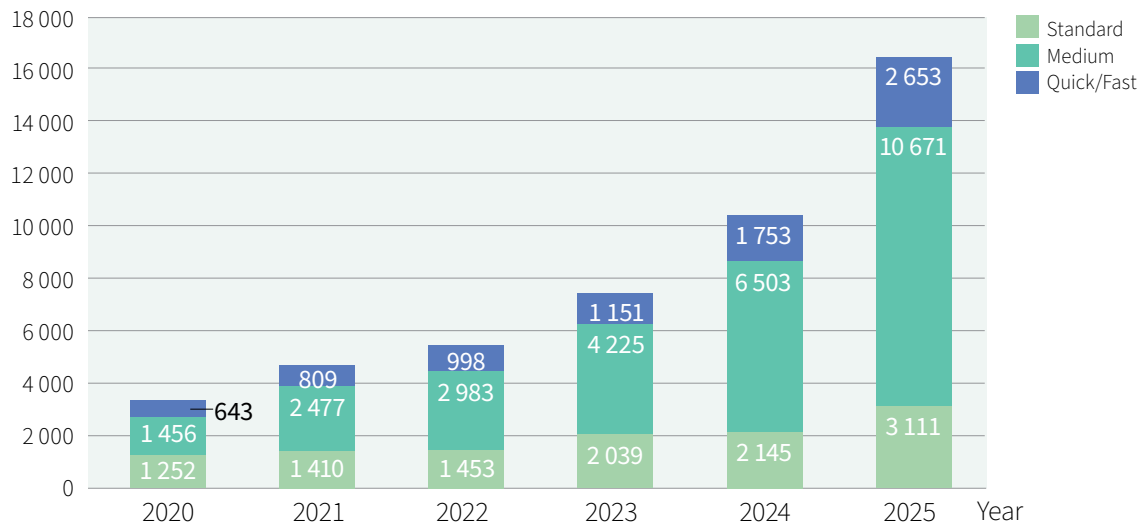
To encourage the installation of EV charging-enabling infrastructure in newly built private building car parks, the Government tightened the gross floor area concessions in 2011, granting concession only to underground car parks where EV charging-enabling infrastructure is installed for all parking spaces. To further increase the number of charging facilities, the Government tightened the policy further from November 2025. In addition to EV charging-enabling infrastructure, all PC, motorcycle and LGV parking spaces must be fully equipped with medium chargers (rated output power not less than 7kW) to qualify for full concession from gross floor area calculation.

With recent adjustments in the property market, developers have correspondingly moderated the pace of private residential project development, which may impact the supply of parking spaces equipped with EV charging facilities.



Public Charging Network

Figure 10: Number of Public Chargers



5.3 The public charging network is crucial for e-CVs and EVs without available private charging facilities, and forms a core component of the Government’s EV promotion strategy. Through Government initiatives and industry collaboration, the public charging network is expanding rapidly.



5.4 The 2021 Hong Kong Roadmap on Popularisation of Electric Vehicles set a target of providing 5 000 public chargers by 2025. Not only have we achieved this target ahead of schedule, by the end of 2025, the actual number of public chargers reached around 16 440 – increased by more than double of the original target. This includes over 2 650 quick or fast chargers.

5.5 The Government has adopted a multi-pronged strategy, leveraging market forces to encourage private sector to install more public chargers through subsidies and appropriate measures, while simultaneously increasing public chargers in government car parks. The Environment and Ecology Bureau will continue to drive the expansion of the public charging network through a high-level inter-bureaux/departamental working group. Specific measures to promote the public charging network are detailed below:

Fast Charger Incentive Scheme

5.6 The 2024 Policy Address earmarked \$300 million to encourage private organisations to install 3 000 fast chargers by the end of 2028, supporting an additional 160 000 EVs. Following its launch in July 2025, the scheme has received a positive market response, with nearly 60 applications received by the end of December 2025. To date, we have approved over 430 fast chargers across the territory. Of these, 20 chargers have already been put into service, with the rest expected to follow in the coming months.



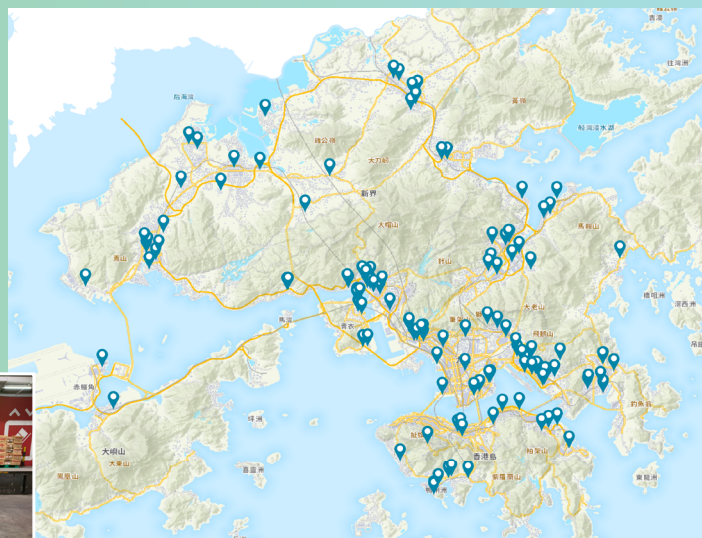
## Fast Charger Incentive Scheme

Under the scheme, each newly installed fast charger is entitled to a subsidy of \$100,000. Eligible applicants may receive up to \$20 million subsidy, i.e. a ceiling subsidy of 200 fast chargers. Applicants are required to make arrangements on their own for land and power supply and bear the relevant costs. To receive the subsidy, applicants must fulfill the following key requirements:

- The fast chargers must provide at least 14 hours of public charging services daily for a period of 30 months;
- Real-time information on charging fees, relevant costs and charger usage must be provided to the Government-designated applications and other online platforms;
- Charging fees must be based on actual energy usage; and
- Identical charging services and fee standards must be provided for all makes, models, and charging standards of EVs. No preferential service may be given to specific vehicles or individuals, except for discounts and priority services for CVs.



## Distribution of Fast Chargers Granted with Approval-in-principle



5.7 As mentioned earlier, referencing the \$300 million Fast Charger Incentive Scheme, we plan to introduce a new scheme to encourage the installation of fast chargers with a rated power output of at least 240 kW for use by e-CVs.

## Promoting the Conversion of PFSs into Fast Charging Stations or Petrol-cum-Charging Stations

5.8 As conventional fuel vehicles gradually transition to EVs, the demand for automotive fuel will continue to decline. The Government has been reviewing the future development of PFSs and will promote their transformation in a timely manner to make effective use of existing PFSs across Hong Kong to support the expansion of the public charging network. The 2023 Policy Address proposed retrofitting of PFS with EV charging facilities. We have adjusted the relevant land lease terms for PFSs and provided incentives, including shortening the lease term for new PFS to 12 years, granting conditional short term lease extension for PFSs retrofitted with EV chargers, and waiving the premium payable for lease modifications required for installing EV chargers.



5.9 Currently, there are approximately 180 PFS sites across Hong Kong, with around one-third (about 60 sites) suitable for installing chargers. By the end of 2025, we have given in-principle approval for installation of more than 70 fast chargers at over 20 PFSs. As the retrofitting programme progresses, the pace of future charger installations is expected to accelerate. We anticipate that from 2026 onwards, a maximum of about 180 fast chargers will be progressively made available across the existing approximately 60 PFSs.

5.10 In 2024 and 2025, the Government also put to land sale three vacant PFS sites in Kowloon East and New Territories East via open tender for use as fast charging stations, providing at least 41 fast chargers. Of these, 28 will commence operation in early 2026. These chargers will have a rated power output of no less than 100 kW, meeting the rapid recharging needs of e-CVs within short timeframes. Depending on market response, the Government plans to roll out more sites for fast charging stations at an appropriate time in the future, and also intends to add charging bays for large e-CVs at these stations.





Land Sale for Fast Charging Stations

- The Government has identified six PFS sites across Hong Kong for development into fast charging stations, located in Tai Po, Tsing Yi, Tseung Kwan O, Kwun Tong, Tai Hang and Heng Fa Chuen. The Tai Po site was sold in November 2025 and will provide at least 13 chargers. Another site in Tsing Yi has its tender closed, with an expected minimum provision of 25 chargers. Collectively, the six sites will offer over 100 chargers, including more than 10 chargers designated for medium and large-sized e-CVs.
- Operators of fast charging stations must reserve a specified number of fast chargers for charging e-taxis and e-PLBs from 3 p.m. to 6 p.m. daily (i.e. the “shift-changing” period). In addition, there is a price cap for charging services for e-taxis and e-PLBs, and operators may not charge more than the price cap published by the Environmental Protection Department (EPD) each month.

Inter-Bureaux/Departmental Working Group on Charging Facilities

5.11 The Government has established a high-level inter-bureaux/departmental working group to coordinate the work of various bureaux/departments and solicit cross-sectoral cooperation and support for establishing a comprehensive EV charging network. The inter-bureaux/departmental working group provides guidance on the planning of the charging network, challenges encountered in taking forward projects, and new pilot initiatives, thereby accelerating the electrification of vehicles and the development of the charging network. Members of the working group are drawn from various bureaux/departments, including the Environment and Ecology Bureau, the Transport and Logistics Bureau, the Development Bureau, EPD, the Fire Services Department, the Highways Department, the Hong Kong Police Force, the Transport Department, the Planning Department, and the Lands Department.

Marketisation of EV Charging Services

5.12 The Government is progressively marketising the EV charging services at its car parks, entrusting contractors with the operation and collection of charging fees. The objective is to accelerate the expansion of Hong Kong’s charging network by stimulating the private sector participation. The EPD completed the marketisation of charging services at 74

government car parks in June 2024. Currently, approximately 1600 medium chargers operate on a market-based approach calculated based on energy consumption. Other government departments are also progressively arranging the marketisation of their EV charging services. For example, by December 2025, the Housing Authority has implemented charging fees at approximately 800 chargers installed in hourly parking spaces across around 80 car parks.

Charger Supply Targets

5.13 Hong Kong now has over 140 000 parking spaces equipped with EV charging-enabling infrastructures, representing a more than 4.3-fold increase compared to 2021. This includes approximately 16 440 public chargers, which is also about 3.5 times the number in 2021. The Government will continue expanding the territory’s EV charging infrastructure, aiming to increase the total number of parking spaces with charging facilities to about 200 000 by mid-2027. This includes around 20 000 public chargers, of which over 4 000 will be quick or fast chargers and approximately 16 000 standard/medium chargers. The total capacity will support over 300 000 EVs. Moving forward, we will establish a public charging network with fast chargers as the backbone. Through policy guidance and market forces, the goal is to increase the number of fast chargers to 4 000 by 2030. By 2035, we expect to have about 10 000 fast chargers, supporting around 500 000 EVs. By that time, it is estimated that approximately 270 000 to 300 000 public and private parking spaces with charging facilities will be available, collectively supporting the charging needs of around 800 000 EVs. This will not only provide greater convenience for private car owners but also support the popularisation of e-CVs.

Rated Output Power of Various Types of EV Chargers

Chargers	Standard	Medium	Quick	Fast
Rated Output Power(kW)	2.8	>2.8 to 20	> 20 and < 100	≥ 100

5.14 We shall continue to leverage market forces to drive the development of the fast charging network. With continuous advancements in charging technology, EVs and charging facilities supporting high-rated power charging are already emerging in the market and their numbers are expected to proliferate significantly in the future. At that stage, each charger will be able to serve more EVs, and the actual number of chargers required will also change. The charging experience for EVs will increasingly resemble that of fuel-propelled vehicles, even achieving “same speed for petrol and electric refuelling”.

Figure 11: Current Distribution of Public Charging Facilities

Total	
Standard	3 111
Medium	10 671
Quick/Fast	2 653
	<hr/> 16 435



Improving Charging Information Platform

The EPD launched the "EV-Charging Easy" mobile application in 2022 to assist EV drivers in locating available chargers. To enhance overall coverage and user convenience, the application underwent an upgrade in 2024, incorporating

information on non- government-operated public chargers. From late 2025, the "EV-Charging Easy" has been integrated with Transport Department's HKeMobility mobile application to provide one-stop information. The general public can obtain information on public chargers to conveniently enquire the usable charging facilities through the HKeMobility mobile application.

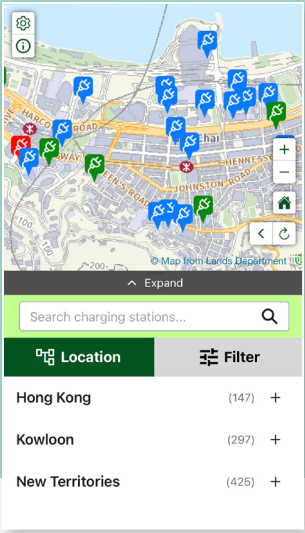
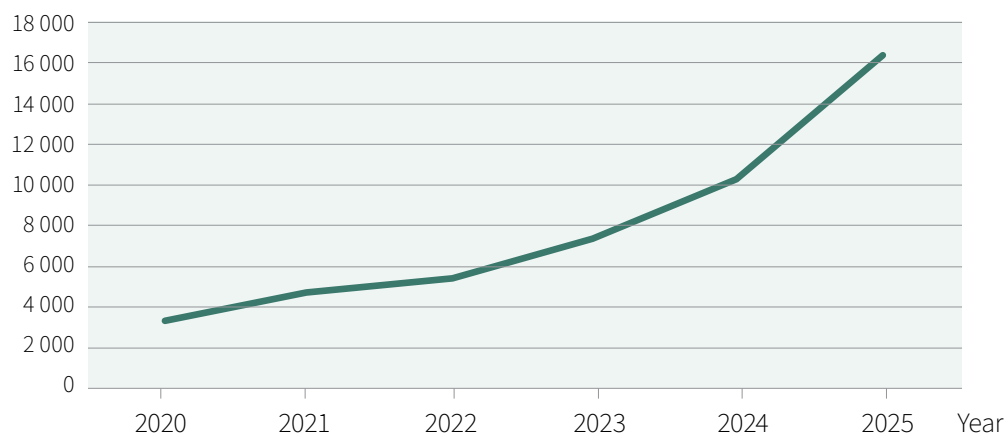


Figure 12: Number of Public Chargers in Hong Kong



Enhancing Charging Facilities at Government Building Car Parks

5.15 In March 2023, the Government updated the Circular on Green Government Buildings, requiring all PC, motorcycle and LGV parking spaces (whether indoor or outdoor) in new government buildings to be fully equipped with medium chargers. The 2022 Policy Address also announced a target to provide EV charging facilities in about 7 000 additional parking spaces in government building by the end of 2025. As of the end of 2025, over 6 800 charging facilities had been installed, with the remainder expected to be completed in the first quarter of 2026. The Government is further reviewing the circular to provide charging facilities with higher rated output power (i.e. increasing the requirement from no less than 7 kW to no less than 20 kW) for all PC and LGV parking spaces within the newly built government premises, to install more EV fast chargers, and depending on the circumstance, to extend the requirement for installing fast chargers to government public car parks.

Alternative Charging Methods

5.16 Battery swapping offers an alternative to conventional charging methods. This technology enables EVs to replace depleted batteries with fully charged ones within minutes, significantly reducing vehicle downtime for charging. It represents another convenient means of supplying energy to EVs. Meanwhile, we have noticed that some charging service providers are using battery energy storage systems and mobile chargers to support EV charging services in locations with insufficient or no power supply. The Government welcomes diverse charging solutions such as battery swapping or battery energy storage systems and is willing to assist in promoting their adoption in Hong Kong.

Application of Battery Energy Storage Systems

Battery energy storage systems store electrical energy in batteries through continuous charging for standby use. Battery energy storage systems equipped with built-in EV chargers combine energy storage and charging functions, enabling rapid charging of EVs while also replenishing power from the grid during standby periods, addressing the power shortages during peak charging times.

During the 15th National Games and the 12th National Games for Persons with Disabilities, CLPe under the CLP Group provided high-efficiency battery energy storage systems with integrated EV chargers. These systems enabled rapid charging of EVs while also providing backup power support for outdoor equipment.



## 2. Charging Standards

5.17 Traffic between Hong Kong and the Chinese Mainland (particularly cities in the Greater Bay Area) are becoming increasingly frequent. To meet the charging needs of EVs compliant with GB standard, the Government encourages and promotes the installation of quick charging facilities compatible with both GB and European (IEC) standards at various locations across the territory. For instance, quick charging facilities compliant with GB standard have been provided in the Hong Kong-Zhuhai-Macao Bridge Hong Kong Port car park and locations on Lantau Island near the bridge port to accommodate the charging needs of EVs from Guangdong travelling southbound. The Government has also stipulated in the land grant conditions for publicly tendered fast charging station sites that operators must provide a specified number of GB-standard chargers. The private market is actively preparing to offer GB-compatible charging facilities. Currently, 70 GB-standard chargers are operational, with relevant information available on the EPD's website and the Transport Department's "HKeMobility" mobile application.

5.18 In September 2023, the State Administration for Market Regulation and the Standardisation Administration of China issued a recommended national standard concerning the next-generation charging technology ChaoJi. This technology not only supports high-power charging but also achieves innovative breakthroughs in charging standard compatibility and safety. On 24 October 2025, the National Energy Administration and the Environment and Ecology Bureau of the Hong Kong Special Administrative Region Government signed the "Cooperation Arrangement on Promoting the Interconnectivity of Charging Facilities in the Greater Bay Area". We will establish a joint working group to implement a pilot scheme in Hong Kong adopting the ChaoJi charging standard. This initiative will help Hong Kong explore long-term solutions to the inconsistency in

EV charging standards between the Chinese Mainland and Hong Kong, promoting interconnection and green, low-carbon transportation development in the Guangdong-Hong Kong-Macao Greater Bay Area. The joint working group will be established in the first half of 2026 to prepare for the pilot scheme, with the target of completing the construction of a ChaoJi charging demonstration station in Hong Kong by 2027, thereby facilitating the "bringing in and going global" of our Country's innovative charging technologies.

5.19 In April 2015, we published the Technical Guidelines on Charging Facilities for Electric Vehicles. Over the past decade, EV charging technology has advanced rapidly, presenting new challenges including inconsistent charging standards between the Chinese Mainland and Hong Kong, the use of adapters, statutory requirements and procedures for installation of charging facilities, updated measures to facilitate battery energy storage system usage, safety concerns regarding charging in basement car parks, and the need to update standards of chargers. The Government has recently commenced work to update the relevant technical guidelines by the end of 2026 to keep pace with the latest developments in EVs.

## 3. EV Maintenance and Personnel Training

5.20 As conventional fuel-propelled vehicles continue to transit towards EVs, we must ensure there are sufficient maintenance mechanics possessing the relevant professional skills to provide appropriate EV maintenance services. In July 2024, the Electrical and Mechanical Services Department and the Vehicle Maintenance Technical Advisory Committee incorporated EV maintenance services into the Voluntary Registration Scheme for Vehicle Mechanics and the Voluntary Registration Scheme for Vehicle Maintenance Workshops (the Registration Schemes) to address local demand for EV maintenance services. By the end of 2025, approximately 1 100 EV maintenance persons had successfully registered.

5.21 The Vehicle Maintenance Technical Advisory Committee has established training course standards for EV maintenance, along with registration requirements for vehicle mechanics and workshops engaged in EV maintenance services. Registered vehicle maintenance workshops meeting the registration requirements for EV maintenance services will be issued with the relevant EV maintenance workshop identification mark. The Committee has also compiled the



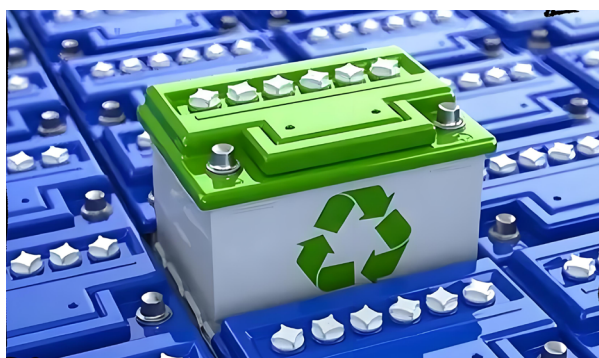


EV Maintenance Work Guidelines, which recommend the facilities required for EV maintenance services, including personal protective equipment, first-aid equipment, fire-fighting facilities, site layout, and testing and maintenance tools.

5.22 Under the registration scheme, EV maintenance services are categorised into three levels: basic, low-voltage, and high-voltage. By the end of 2025, the Vehicle Maintenance Technical Advisory Committee had accredited ten EV maintenance training courses offered by six institutions and colleges, including the Vocational Training Council, the Occupational Safety and Health Council, Kowloon Motor Bus Academy, Association of Auto Batteries & Tyres Industry, Dah Chong Hong (Motor Service Centre) Limited, and Guangzhou Communications Technician Institute. By the end of 2025, approximately 1 100 persons have completed these training courses.

## 4. EV Battery Recycling

5.23 EVs also present challenges to the recycling industry. Currently, waste EV batteries are chemical waste, and the local transportation and treatment of these waste EV batteries shall be handled by a licensed chemical waste collector and a licensed disposal facility, respectively. As there are currently no EV battery recycling facilities locally, the batteries collected will be exported overseas for proper recycling at suitable recycling facilities.



5.24 With the increasing prevalence of EVs, the Government is pushing forward the construction of Hong Kong's first large-scale EV battery recycling facility. The relevant company anticipates commissioning the facility at the EcoPark in the first half of 2026. Its maximum processing capacity will reach 10 000 tonnes annually, equivalent to approximately 20 000 packs of EV batteries. Retired EV batteries with high reusable value will be repurposed into second-life products such as

stationary energy storage systems. Batteries unsuitable for second-life application will be recycled into "black mass" containing valuable metals. Converting end-of-life EV batteries into recycled black mass will foster industrial development, support the "Zero-Waste Bay Area" initiative, and create favourable conditions for implementing the PRS on EV batteries in the future.

5.25 The PRS is a key policy tool for waste management strategy in Hong Kong. Enshrining the principle of "polluter pays" and the element of "eco-responsibility", the PRS concept requires relevant stakeholders to collectively share the responsibility for the collection, recycling, treatment and disposal of end-of-life products with a view to avoiding and reducing the environmental impacts caused by such products at the post-consumer stage.

5.26 Following the passage of the Promotion of Recycling and Proper Disposal of Products (Miscellaneous Amendments) Bill 2025 by the Legislative Council on 23 July 2025, a common legislative framework for PRSs applicable to different products has been established, facilitating the future inclusion of various products, including EV batteries, progressively. The authorities are currently consulting the industry on the operation details of the PRS on EV batteries and will consult the Panel on Environmental Affairs of the Legislative Council within 2026, in light of the actual situation. The PRS will encourage local recycling, thereby promoting the circular economy.

## Greater Bay Area Cooperation

The Special Panel for Building "Zero-Waste Bay Area" was established by Guangdong and Hong Kong in January 2025, serving as a standing mechanism for advancing solid waste management and resources circulation cooperation between the two places, thereby strengthening policy coordination, technical exchanges and project collaboration, as well as elevating the capability in jointly handling solid waste. The EV battery recycling facility currently under construction at the EcoPark exemplifies the application of cutting-edge technology to convert retired EV batteries into resources locally. This initiative not only strengthens Hong Kong's role in the regional green industry chain, but also fosters collaborative development of green technologies and mutually beneficial cooperation in the environmental industry of the Greater Bay Area.

## Overview of Supporting Infrastructure

<b>Private Charging Network</b>  <p>(The target is to increase Hong Kong's total number of parking spaces with charging facilities to about 200 000 by mid-2027, including around 20 000 public chargers, supporting over 300 000 EVs)</p>	<p>Continue to encourage the installation of EV charging-enabling infrastructure in car parks of newly built private buildings through gross floor area concessions</p> <p>Continue to implement the \$3.5 billion “EV-charging at Home Subsidy Scheme” to install EV charging-enabling infrastructure for around 140 000 existing private building parking spaces by 2027-28 financial year</p> <p>New public housing projects provide EV charging facilities for all PC, motorcycle and LGV parking spaces</p>
<b>Public Charging Network</b>  <p>(The target is to provide 4 000 fast chargers by 2030 and around 10 000 fast chargers by 2035. These 10 000 chargers will support the charging need of around 500 000 EVs.)</p>	<p>A high-level inter-bureaux/departmental working group coordinates the efforts of various bureaux/departments to establish a comprehensive EV charging network</p> <p>Implement a \$300 million Fast Charger Incentive Scheme to provide 3 000 fast chargers by the end of 2028</p> <p>Convert gradually PFSs into fast charging stations and retrofit existing PFSs with fast chargers, progressively providing a maximum of around 180 fast chargers from 2026 onwards</p> <p>Implement fee-paying for EV charging services at government car parks to promote the marketisation of EV charging services</p> <p>Provide about 7 000 additional EV charging facilities at government building parking spaces, with approximately 30% (around 2 000 charging facilities) accessible to the public</p> <p>Require all parking spaces for PC, motorcycles and LGV within newly built government buildings to be fully equipped with medium chargers, and further review the requirements of relevant circulars</p> <p>Support the development of alternative charging methods, including battery swapping, battery energy storage systems and the local use of mobile chargers</p>
<b>Charging Standards</b> 	<p>Install quick charging facilities compliant with GB and IEC standards near the Hong Kong-Zhuhai-Macao Bridge Hong Kong Port</p> <p>Require the provision of certain number of chargers compliant with GB standard in tenders for fast charging stations</p> <p>Establish a working group with the National Energy Administration in the first half of 2026 to prepare for the ChaoJi trial</p> <p>Update technical guidelines for EV charging facilities by the end of 2026 to keep pace with the latest developments</p>
<b>Maintenance and Personnel Training</b> 	<p>Launched a voluntary registration scheme for EV maintenance</p> <p>Compiled the Practice Guidelines for EV Maintenance</p> <p>Ten EV maintenance training courses have been offered by six organisations and institutions, cumulatively training approximately 1 100 persons</p>
<b>Battery Recycling</b> 	<p>Hong Kong's first large-scale EV battery recycling facility is expected to commence operation at the EcoPark in the first half of 2026</p> <p>A common legislative framework for PRS has been established. Consultations with the industry are underway, with plans to consult the Panel on Environmental Affairs of the Legislative Council on the PRS for EV batteries within 2026</p>



# Concluding Remarks

Amidst the rapid development of EVs, their popularisation represents not merely a technological endeavour but also a societal mission. As climate change challenges intensify, promoting sustainable green transport has become a global consensus. By implementing the measures outlined in the Updated Version of the Hong Kong Roadmap on Popularisation of Electric Vehicles, we aim to lay a solid foundation for the future electrification of vehicles and lead the industry towards a green transformation.

We will encounter various opportunities and challenges on the road to green transformation. We must however have a “big picture” perspective throughout this journey, considering holistically multiple critical factors including technological

advancement, societal needs, and economic environment, to chart a transformation pace and path suitable for Hong Kong. We should seize opportunities amidst challenges, improve the environment and user experience, bring new economic growth and social progress, and create a win-win situation.

Collaboration across all sectors of society is pivotal to achieving a successful green transformation. We look forward to working hand-in-hand with our industry partners and the public to jointly promote the wide adoption of EVs, striving towards the vision of zero vehicular emissions and carbon neutrality before 2050, realising sustainable development, and creating a better and more livable environment for all.

