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Panel on Environmental Affairs

**Subcommittee to Study Issues Relating to the Development
of Electric Vehicles**

Background brief

Purpose

This paper provides background information on the Government's measures to promote the use of electric vehicles ("EVs") in Hong Kong. It also gives a brief account of the views and concerns expressed by Members when related issues were discussed by the relevant committees of the Legislative Council ("LegCo").

Background

2. Vehicle tailpipe emissions are the key roadside air pollution source. To improve roadside air quality, the Government has been promoting the replacement of conventional vehicles by EVs, which do not have tailpipe emissions and are more energy efficient. Since commercial vehicles ("CVs") account for 95% of the vehicular emissions of respirable suspended particulates and nitrogen oxides, which are major air pollutants, CVs have all along been a major target of the Government's measures to improve roadside air quality.

Electric commercial vehicles

3. As technologies for electric CVs ("e-CVs") are still under development, with their prices generally higher than their conventional counterparts, the Government currently focuses on promoting e-CVs through the following measures:

- (a) the first registration tax ("FRT") of e-CVs has been waived since 1994 until 31 March 2021 to encourage owners to purchase e-CVs and promote the development of e-CVs;¹
- (b) since 2010, enterprises which procure environment-friendly vehicles including EVs are allowed full profits tax deduction for the capital expenditures on the vehicles in the first year of procurement;
- (c) a \$300 million Pilot Green Transport Fund ("PGTF") has been put in place since March 2011 to encourage the public transport sectors, goods vehicle operators and non-profit-making organizations to test out green innovative transport technologies, including e-CVs.^{2 3} As announced in the 2019 Policy Address, the Government is also making preparations for the implementation of a pilot scheme on electric public light buses and a pilot scheme on electric ferries;⁴ and

¹ The FRT of a conventional vehicle is derived from the taxable value of the vehicle times the appropriate tax rate. The tax rates for different vehicle classes are shown below:

- FRT rates of private cars are 40% on the first \$150,000 of vehicle taxable value, 75% on the next \$150,000, 100% on the next \$200,000 and 115% on the remainder.
- FRT rates of CVs (except van-type light goods vehicles ("LGVs") not exceeding 1.9 tonnes permitted gross vehicle weight) are 3.7% to 17% of their taxable values depending on their vehicle classes, and motor cycles and motor tricycles at 35%.
- FRT rates of van-type LGVs not exceeding 1.9 tonnes permitted gross vehicle weight are 35% on the first \$150,000 of vehicle taxable value, 65% on the next \$150,000 and 85% on the remainder.

² As at the end of December 2019, 183 trial applications were approved (excluding applications withdrawn after approval), including 110 on EVs, 65 on hybrid vehicles and eight applicable to buses and ferries. About \$154 million of subsidies have been approved.

³ The Administration has completed a review in 2019 and proposed injecting an additional \$800 million into PGTF for extending the funding scope, with the Fund to be renamed as "New Energy Transport Fund". Subject to funding approval, the Administration plans to implement the new scope and conditions in the second quarter of 2020. For details, please refer to paragraphs 30 to 39 of LC Paper No. CB(1)336/19-20(04) issued for the meeting of the Panel on Environmental Affairs held on 22 January 2020.

⁴ For details of the two pilot schemes, please refer to paragraphs 12 to 29 of LC Paper No. CB(1)336/19-20(04) issued for the meeting of the Panel on Environmental Affairs held on 22 January 2020.

- (d) \$180 million was approved by the Finance Committee of LegCo in 2012 to fully subsidize the franchised bus companies ("FBCs") to purchase 36 single-deck electric buses (including 28 battery-electric buses and eight supercapacitor buses and their charging facilities) for trial on a number of routes. At present, 26 battery-electric buses and seven supercapacitor buses have commenced a two-year trial. The remaining electric buses are expected to be put into service gradually in 2020.

Electric private cars

4. For electric private cars ("e-PCs"), the Government's standing policy is to encourage the public to use public transport as far as possible, and should they need to acquire private cars ("PCs"), choose e-PCs. The Government's main supporting measures include offering financial incentives such as tax concessions and lower annual vehicle licence fees, and facilitating the development and improvement of charging networks for e-PCs.

Financial incentives

5. The FRT for e-PCs was waived in full from 1994 to 31 March 2017. Having considered various factors (including the enhanced performance of e-PCs to meet drivers' general needs, availability of more affordable models of e-PCs with greater varieties in local market, and the Government's established public transport-oriented policy, etc.), the Government had capped the FRT concessions for e-PCs at \$97,500 from 1 April 2017 to 31 March 2018, which was subsequently extended by three years to 31 March 2021 as announced in the 2018-2019 Budget.

6. In February 2018, the Government launched a "One-for-One Replacement" Scheme to allow PC owners who arrange to scrap and deregister their own eligible old PC (PC with an internal combustion engine or e-PC) and then first register a new e-PC to enjoy a higher FRT concession of up to \$250,000.⁵

⁵ Under the revised eligibility criteria of the "One-for-One Replacement" Scheme announced on 28 January 2019, the old PC must have been first registered in Hong Kong for at least six years, the vehicle owner must have been the registered owner of the old PC for 18 months or more, without interruption, immediately prior to its de-registration; and the old PC, with or without interruption, must have been licensed for at least 10 months (i.e. 304 days or more) within the 12 months immediately before its de-registration. The details of the revised eligibility criteria are hyperlinked in Appendix III.

7. E-PCs also enjoy a lower annual vehicle licence fee under the Road Traffic (Registration and Licensing of Vehicles) Regulations (Cap. 374E).⁶ The annual vehicle licence fees for e-PCs range from about \$600 to \$1,100, which are significantly lower than those for conventional PCs ranging from \$3,815 (for petrol PCs with engine cylinder capacity not exceeding 1 500 cc) to \$12,675 (for diesel PCs with engine cylinder capacity exceeding 4 500 cc).

Promoting the development and enhancement of charging networks

8. Regarding the charging arrangements for e-PCs, the Government's policy direction is that e-PC owners should perform daily charging of their e-PCs by using charging facilities at their home, workplace or other suitable places (including charging facilities provided by e-PC suppliers). Public charging facilities in Hong Kong are supplementary in nature, set up for EVs to top up their batteries at times of occasional needs. They do not serve as daily charging facilities or their alternatives.

9. To facilitate the installation of charging facilities in private premises, the Government has tightened the granting of concession on gross floor area for private car parks in new buildings from April 2011 to encourage developers to provide the EV charging-enabling infrastructure, including provision of sufficient power supply, cabling and conduits for all parking spaces in the buildings concerned. In 2011, the Hong Kong Planning Standards and Guidelines was amended to recommend 30% of private parking spaces in new buildings to be installed with charging facilities for e-PCs.

10. For existing private premises, as there are constraints in installing charging facilities in their car parks, the Environmental Protection Department ("EPD") established in 2011 a dedicated team and a hotline to provide information and technical support as necessary. Besides, EPD has appealed to owners' corporations for their support to installing EV chargers at their premises upon request by EV users, and has shared successful experience with the property management sector. The two power companies also provide technical advice to EV owners and render service to connect power supply for car parking spaces at their homes. In recent years, several private companies have been providing EV owners, housing estates or business establishments with one-stop EV charging services, including installation of charging facilities at EV owners'

⁶ Annual vehicle licence for e-PC is charged based on the unladen weight of the vehicle, at a fee of \$440 for the first tonne and \$95 for each additional 250 kg or part thereof. Annual vehicle licence for conventional PC is charged based on the cylinder capacity of the engine ranging from \$3,815 (for petrol PCs with engine cylinder capacity not exceeding 1 500 cc) to \$12,675 (for diesel PCs with engine cylinder capacity exceeding 4 500 cc).

parking spaces and provision of charging services at other specified locations.

11. Information on public chargers, including their locations, types and numbers, is currently available on EPD webpages. Equipment is being installed in public chargers in government car parks for trial on sending instant electronic information of public chargers' utilization to government electronic platforms for public reference. Certain EV charging service providers and EV suppliers are providing mobile applications by which EV owners can check instant information of chargers available and make reservations.

12. Under the 2019-2020 Budget, the Government has allocated \$120 million to extend the public EV charging networks at government car parks in the coming three years. The number of public chargers in the government car parks is expected to reach about 1 800 by 2022. As announced in the 2019 Policy Address, the Government is also making preparations for launching a pilot subsidy scheme of \$2 billion to subsidize installation of EV charging-enabling infrastructure in car parks of existing private residential buildings.

Ombudsman's direct investigation

13. There have been criticisms that the provision of public EV chargers has not kept pace with the growth in the number of e-PCs in recent years. As this may impede the wider use of EVs in Hong Kong, the Ombudsman initiated in September 2017 a direct investigation to explore in depth whether the Government's planning and arrangements for ancillary facilities are in line with its policy on promoting the use of EVs. The relevant report of the findings was published in October 2019. The Ombudsman has identified inadequacies on the part of the Environment Bureau and EPD in seven aspects regarding the planning and arrangements for ancillary facilities for e-PCs and made 15 recommendations for improvement, as set out in the executive summary of the report (Appendix I).⁷

Major views and concerns expressed by Members

14. The Panel on Environmental Affairs ("EA Panel") discussed issues relating to the promotion of EVs at various meetings in recent years. Related issues were also raised when EA Panel discussed the Government's measures to improve roadside air quality. Members' major views and concerns raised at these meetings are summarized in the ensuing paragraphs.

⁷ The full report is hyperlinked in Appendix III.

Financial incentives for private car owners to switch to electric vehicles

15. Some Members criticized that the Administration had not set any targets and long-term plan for promoting wider adoption of EVs, and considered that the current financial incentives for PC owners to switch to e-PCs remained insufficient. They called on the Administration to restore the full waiver of FRT for e-PCs, and offer more types of financial incentives to attract vehicle owners to switch to EVs, such as ex-gratia payments to owners of fuel-engined vehicles replacing such vehicles with EVs, and lower parking and toll fees for EVs. There was also a view that conventional PCs running on fossil fuels should be phased out by 2030 so that all newly registered PCs would be e-PCs. At the meeting on 28 January 2019, EA Panel passed a motion urging the Government to, among other things, draw reference from the strategies of other places for promoting the use of EVs, and set a timetable for phasing out petrol vehicles and targets on the take-up rate of EVs.

16. The Administration advised that its long-term goal was to promote the general adoption of new energy vehicles with a view to improving roadside air quality. However, it had not set any target for the proportions of EVs and hybrid vehicles in the local vehicle fleet. For e-PCs, the Government's standing policy was to encourage the public to use public transport as far as possible, and should they need to acquire PCs, choose e-PCs. The main supporting measures included offering financial incentives such as tax concession and lower annual vehicle licence fee, as well as facilitating the development and improvement of charging networks for e-PCs.

17. Taking into account factors such as the technological development and market situation of EVs, as well as road traffic conditions and views of stakeholders, the Administration considered it necessary to balance the control of the overall growth of PCs to avoid causing traffic congestion and aggravating roadside air pollution, and encouraging vehicle owners to go for EVs when purchasing PCs. Therefore, apart from continuing with the current FRT concession up to \$97,500 for e-PCs, the Administration had introduced the "One-for-One Replacement" Scheme in the same period to allow eligible existing vehicle owners who bought a new e-PC and scrapped their own eligible old PC to enjoy a higher FRT concession of up to \$250,000. The Administration considered that this arrangement already provided suitable financial incentives for eligible existing PC owners to purchase e-PCs when replacing their cars. The Administration would review the existing FRT arrangements for EVs before their expiry in 2021, and had no plan to revise the established arrangements at this stage.

Development of charging facilities

18. Members in general supported the Administration's plan to launch a pilot scheme to subsidize the installation of EV charging-enabling infrastructure in car parks of existing private residential buildings. They called on the Administration to further facilitate the installation of EV charging facilities on private premises and expand the public EV charging network expeditiously, as well as setting targets and timeframe for implementation in this regard.

19. The Administration responded that the policy direction was that the daily charging of e-PCs should be performed with charging facilities at e-PC owners' homes or workplaces or other suitable places (including charging facilities provided by e-PC suppliers). Therefore, the Administration's priority was to facilitate and encourage the installation of charging facilities on private premises when planning for the development of EV charging facilities. In the light of the rapid changes in the usage of EVs, the Administration was reviewing the various policies and measures on promoting the use of EVs. Apart from the pilot scheme to subsidize the installation of EV charging-enabling infrastructure in car parks of existing private residential buildings, funds had been set aside under the 2019-2020 Budget to install 1200 additional medium chargers for public use in government car parks.

Adoption of electric vehicles by transport trades

Effectiveness of the Pilot Green Transport Fund

20. Members expressed disappointment about the slow growth in the number of licensed e-CVs, and questioned on the effectiveness of PGTF in promoting the use of EVs by the transport trades.

21. The Administration advised that commercial adoption of EVs was still constrained by factors including the long charging time, low energy density, heavy weight and high cost of EV batteries, as well as limited choices of e-CV models on the market. As light goods vehicles ("LGVs") generally did not operate round the clock and might have a lower daily mileage and lighter payload, the Administration had made electric LGVs a key focus of promotion of PGTF. Regarding replacement of conventional vehicles, the Administration advised that, in line with the practice of many other places, the current priority was to replace the most polluting diesel vehicles. The Administration would continue to explore further measures to encourage the replacement of conventional PCs with electric ones.

Trial of electric buses

22. Members expressed concern about the lack of progress in taking forward the use of electric buses in Hong Kong even though the trial of such buses had commenced for some years since end of 2015, in contrast to the wider adoption of e-CVs (such as electric buses and taxis) in neighbouring cities like Shenzhen. They urged the Administration to set targets and timeframe for promoting wider use of electric buses. Noting that the preliminary trial results of battery-electric buses showed that these buses in operation encountered problem of limited driving range, some Members queried whether the manufacturer had provided false description of the performance of the electric buses under trial.

23. The Administration explained that the preliminary trial results showed that the electricity consumption per kilometre under the operational mode of hilly terrains in Hong Kong and high demand on air-conditioning was higher than that in other places and the situation was even worse in hot and humid summer. EPD together with FBCs and manufacturer were exploring the possibility of increasing the battery efficiency and identifying suitable routes with their operational conditions which could cope with the limited driving range. The Administration also pointed out that for the supercapacitor buses, the operation of the first batch of two had been satisfactory but there was unstable operation of supercapacitors under high temperature in summer. The FBC concerned was working with the bus supplier on the performance of supercapacitor buses to ensure that the buses were in stable operation.

Recovery and reuse of EV batteries

24. In light of the successive replacement of batteries of registered EVs, Members requested the Administration to formulate expeditiously a policy for the recovery and reuse of EV batteries, so as to prevent such batteries containing toxic substances from being dumped at landfills, seriously polluting the environment and damaging the ecology.

25. The Administration advised that at present, the age of most EVs in Hong Kong was still relatively low and there were few retired EV batteries. In anticipation of the growth and wider adoption of EVs in the future, apart from regulating the disposal of waste batteries according to the Waste Disposal Ordinance (Cap. 354), EPD had been discussing with EV suppliers for the promotion of proper collection and handling of waste EV batteries and the long-term arrangements. According to the Administration, various EV suppliers had arranged for recovery of batteries from EVs supplied by them.

Council motion and questions

26. At the meeting of 11 April 2018, LegCo passed a motion with 13 suggestions on "Promoting the Popularization of Electric Vehicles". The wording of the motion is attached in **Appendix II** and the hyperlink to the progress report provided by the Administration is in **Appendix III**.

27. In the Sixth LegCo, Hon Frankie YICK, Hon HUI Chi-fung, Hon CHAN Hak-kan, Hon Kenneth LEUNG, Hon Charles Peter MOK, Hon Tanya CHAN and Hon Jeremy TAM raised questions related to the Administration's measures to promote the use of EVs. The questions and the Administration's replies are hyperlinked in **Appendix III**.

Relevant papers

28. A list of relevant papers is set out in **Appendix III**.

Executive Summary Direct Investigation Report

Government's Planning and Arrangements for Ancillary Facilities for Electric Private Vehicles

Introduction

In order to encourage the use of electric vehicles ("EVs") for reducing roadside air pollution, the Government has fully or partially waived the first registration tax ("FRT") for EVs since April 1994. The number of electric private vehicles ("EPVs") surged rapidly within a few years, but the growth in the number of public charging facilities has lagged far behind that of EPVs.

2. The focus of this investigation is not on whether the Government should promote the replacement of conventional petrol vehicles with EVs. We consider that the Government must set a clear policy and practicable measures (including planning, installation and development of ancillary facilities) with specific targets, so that various stakeholders (such as the two power companies, the automotive sector, vehicle owners and car park owners) would be motivated to offer their support in response.

Our Findings

3. Our investigation revealed inadequacies on the part of the Environment Bureau ("ENB") and Environmental Protection Department ("EPD") in the following seven aspects regarding the planning and arrangements for ancillary facilities for EPVs.

(I) Failing to Clearly Explain to the Public the Change in EV Policy

4. The Government started promoting the use of EVs as early as the 1990s and explicitly supported the implementation of such a policy in its policy documents. However, the Government has subsequently changed its policy and measures without clearly explaining to the public the reasons and justifications behind. As a result, the public cannot fully grasp the Government's stance in promoting the use of EVs.

5. Since 2016, the Government has undertaken to focus its policy on promoting the use of EVs in the public transport system, while the promotion of EPVs is no longer mentioned. In 2017, the Government reduced the FRT concession for EPVs.

Meanwhile, the number of charging facilities in government public car parks has not shown any significant increase. Moreover, regarding the statement "the Government's longer term target is that as far as private cars are concerned, 30% are EVs or hybrid by 2020" in the Hong Kong Planning Standards and Guidelines ("HKPSG"), ENB explained that the figure merely represents a hypothetical scenario rather than an objective. The original "target" has been changed into a "vision". All those changes would inevitably give the public an impression that the Government is not as proactive in promoting the use of EPVs as before.

6. Promoting the use of EVs in Hong Kong is a long-term policy which requires clear and long-term planning. The Government, therefore, must clearly explain to the public its policy direction and specific targets, and its reasons and justifications for formulating the relevant measures (including the planning and arrangements for ancillary facilities). Where the Government finds it necessary to adjust the policy and modify the measures, it should also take the initiative to explain to the public the reasons in detail, and inform the parties affected of what can be done in the light of the change.

(II) Insufficient Charging Facilities

7. While the number of EPVs has surged since 2014, there has been no significant increase in the number of public charging facilities. It can be foreseen that EPV users will have greater difficulty than before in finding a public charger to charge their vehicles.

8. Regarding car parks managed by the Government, in the 24 hours public car parks under the Transport Department ("TD"), on average, 7.45% of the parking spaces have charging facilities. Furthermore, for the car parks under the Government Property Agency ("GPA"), which provide workplace parking spaces for some civil servants, on average only 15.79% of the parking spaces have charging facilities. As for the Hong Kong Housing Authority ("HKHA") and the Hong Kong Housing Society, which provide public and subsidised housing, the ratio of parking spaces equipped with charging facilities remains relatively low. Among the 161 car parks under HKHA, only 28 are equipped with charging facilities. Overall, the number of parking spaces equipped with charging facilities in government car parks remains relatively low. At present, the Government has not set any long-term or achievable targets for installation of charging facilities in existing buildings.

9. In respect of promoting the installation of charging facilities in private buildings, the actions currently taken by the Government are merely issuing letters to encourage private building owners, and providing technical guidelines. In the lack of statutory requirements and financial incentives, and legal concerns regarding provisions

under the land lease or deed of mutual covenant of the building often arise, existing private building owners are generally not so interested or determined in installing charging facilities. The Government has obviously underestimated the resistance to the installation of EV charging facilities at the car parks in private buildings. The Government needs to explore other means to encourage the installation of charging facilities in existing buildings.

10. As for new building developments, since 2011 the Government has granted gross floor area ("GFA") concessions to encourage developers to provide EV charging infrastructure for the private car parks of new building developments. Nevertheless, the Government makes no requirements for installing chargers and electricity meter connection at the parking spaces already provided with such infrastructure, nor has it any data on the specific charging facilities available at those venues and their charging speed.

(III) Underestimating the Demand for Charging Facilities

11. The Government sees no urgent need to increase the number of public charging spaces, because its statistics show that the current utilisation rate of charging facilities at public car parks is still relatively low. However, this can be due to the fact that charging spaces are often occupied by non-EVs. Besides, the charging spaces in some government public car parks are only equipped with standard chargers which require longer charging time, leading to slower turnover. The overall utilisation rate therefore becomes lower.

12. We believe that the current data on utilisation rate may not have fully reflected the actual demand for the charging facilities at public car parks, and the utilisation rate has been underestimated.

(IV) Information Sharing Inadequate

13. While information about public charging facilities is already uploaded to the EPD website, the Government does not have data on the utilisation of public charging facilities at non-government public car parks. This Office considers that collecting data on the utilisation of charging facilities will enable effective analysis and better estimation of the demand and supply for public charging facilities. The Government obviously lags behind in the application of information technology and in the setting up of information sharing platforms.

(V) *Poor Management of Charging Spaces at Government Public Car Parks*

14. Charging spaces at government car parks are frequently occupied by non-EVs or EVs that are already fully-charged. Although the Government claimed that charging spaces would be reserved for priority use by EVs during non-peak hours, the measure is not a statutory requirement and is implemented largely on a voluntary basis by the outsourced car park contractors. Lax monitoring also renders full and effective implementation impossible. Besides, many charging spaces are located near the entrances/exits of car parks and, therefore, readily taken up by non-EVs. We have also received comments from the public that some charging facilities at government car parks frequently broke down and were out of service.

15. Given the resources invested by the Government in installing more and better charging facilities, we consider it unsatisfactory, from the perspective of proper use of public resources, that the facilities could not be fully utilised because of poor management.

(VI) *Failing to Formulate Clear Fee-charging Policy for Charging Service*

16. Free charging service is the main incentive for people to buy EVs. At present, the Government is paying around \$1 million a year in electricity bills of the charging facilities at its car parks. It already indicated that in the long run, it intends to charge a fee for public charging service. However, the Government has never announced when the free charging service will cease and the subsequent arrangements. In our view, no matter the charging service is provided free or not, and when it intends to start charging a fee, the Government should properly manage expectations and let the public know the related arrangements as soon as possible.

(VII) *Lack of Other Long-term Support Measures*

17. At present, EV owners mainly rely on the maintenance service provided by the original manufacturers. With the growing popularity of EVs, demand for EV maintenance service would become greater. We are of the view that the Government should urge the trade and training institutions to provide systematic training to EV mechanics and those who are interested in joining the profession. Furthermore, EVs as a category is not included under the Voluntary Registration Scheme for Vehicle Mechanics introduced by the Government. The relevant authorities should review the current guidelines and update the relevant codes of practice for the trade's reference.

18. Another important issue is the treatment for retired batteries for EVs, which normally have a lifespan of around seven years. With the growing popularity of EVs, the number of retired batteries is expected to soar. The Government now mainly relies on the EV manufacturers to recycle the batteries. No specific proposals or long-term planning for the disposal of retired batteries have been formulated.

Recommendations

19. In the light of the above, The Ombudsman makes 15 recommendations for improvement to **ENB** and **EPD**:

Policy Implementation

- (1) to explain more to the public the reasons and justifications behind any adjustments to the measures and arrangements regarding the policy on the promotion of EVs;
- (2) to review as soon as possible the contents relating to EV in the HKPSG, and make corresponding amendments and updates to match the Government's current policy direction and targets;
- (3) to set an example by actively promoting the use of EVs among Government departments;

Ancillary Charging Facilities

- (4) to consider installing more charging facilities at car parks managed by Government departments and public organisations (such as HKHA/ Hong Kong Housing Society/ GPA) in order to support the Government's current policy of encouraging EV owners to charge up their vehicles at their homes and workplaces;
- (5) to coordinate and assist other Government departments and public organisations in enhancing the efficiency of charging facilities;
- (6) to install more charging facilities at government public car parks;
- (7) to collect data on the utilisation of public charging facilities at non-government car parks for assessing the need for and scale of expansion of public charging facilities;

- (8) to discuss with TD and GPA, the departments that manage government public car parks, ways to improve the management of charging spaces. This should include a review on how to enhance the current measure of "priority use of charging spaces by EVs" and arrangements for setting up new charging facilities at locations further away from the entrances/exits and passageways of car parks;
- (9) to expedite the setting up of a smart system for the public EV charging network;
- (10) to formulate a clear fee-charging policy and announce the arrangements as soon as possible;

Support Measures

- (11) to strengthen liaison with owners' corporations and owners' committees of private buildings, and explore other means to encourage existing buildings to install charging facilities;
- (12) to review the arrangements for granting GFA concessions to the car parks of newly constructed buildings, and to update the Technical Guidelines for Electric Vehicle Charging-enabling for Car Parks of New Building Developments;
- (13) to collect data on the charging facilities in newly constructed buildings and the charging speed of the facilities;

Long-term Planning

- (14) to urge related institutions to step up training for EV mechanics and repair technicians for charging facilities, as well as review the current guidelines and update the relevant codes of practice; and
- (15) to discuss with the trade and EV suppliers issues relating to the recycling and disposal of retired EV batteries.

**Office of The Ombudsman
October 2019**

(Translation)

**Motion on
"Promoting the popularization of electric vehicles"
moved by Hon Frankie YICK
at the Council meeting of 11 April 2018**

**Motion as amended by Hon Kenneth LEUNG, Hon Charles Peter MOK,
Ir Dr Hon LO Wai-ki, Hon YUNG Hoi-yan, Hon CHAN Hak-kan and
Hon Tanya CHAN**

That, climate change and air pollution have become increasingly serious worldwide; since emission from fuel-engined vehicles is one of the main sources of roadside air pollution, the governments of various countries, including China, Norway, Germany and the United Kingdom, have announced the prohibition of sale of fuel-engined vehicles successively after 2025; meanwhile, the biggest vehicle manufacturer in the world has indicated that it will completely cease the production of fuel-engined vehicles in 2050, and various vehicle manufacturers have also indicated that they will inject more resources into the research and development of new-generation zero-emission electric vehicles ('EVs'), thus evident that the production of EVs has become the general direction of the development of the automobile industry worldwide; the SAR Government has waived the first registration tax for EVs for more than 20 years since 1994, but as at end of August 2017, the result has been unsatisfactory with only 11 033 EVs in Hong Kong, accounting for 1.3% of the total number of registered vehicles in the territory; meanwhile, the SAR Government has since 1 April 2017 abolished the full waiver of first registration tax for electric private cars and instead capped their first registration tax concession at \$97,500, thus impeding the pace of promoting the popularization of electric private cars; to further promote the popularization of EVs, this Council urges the SAR Government to:

- (1) comprehensively review the policy on the promotion of EVs and set phased targets for such promotion, such as setting a target proportion of EVs (including electric private cars and electric commercial vehicles) among registered vehicles in Hong Kong;
- (2) amend the relevant provisions of the Buildings Ordinance to mandate that a specified percentage of parking spaces in all newly constructed commercial and residential buildings must be equipped with charging facilities for EVs, and provide incentives and technical support to encourage owners of old buildings to install the relevant facilities;

- (3) review the provision of ancillary facilities for charging EVs, including conducting a study on retrofitting the existing car parks in government properties and public housing estates, on-street parking spaces and public car parks with charging facilities for EVs, gradually raise the charging speed of standard EV chargers to medium or quick level, and legislate on the regulation of occupation of EV parking spaces by non-EVs;
- (4) in light of the successive replacement of batteries of registered EVs, formulate expeditiously a policy for the recovery and reuse of EV batteries, so as to prevent such batteries containing toxic substances from being dumped at landfills, seriously polluting the environment and damaging the ecology;
- (5) provide funding support for tertiary institutions to offer programmes on the design, scientific research, maintenance, etc. of EVs for nurturing talents for the EV industry, so as to assist Hong Kong in developing the industry of EVs or EV parts; and
- (6) restore the full waiver of first registration tax for electric private cars to incentivize members of the public to use electric private cars instead of fuel-engined private cars of higher emission; and
- (7) conduct a study on using the revenue from EV registration tax to finance environmental protection work and develop charging facilities, and enhance public education in relation to EVs;
- (8) examine the development strategy for environment-friendly vehicles in Hong Kong; and
- (9) corresponding to its vigorous promotion of the development of scientific research and innovation and technology, support the industry to develop EV batteries and explore the possibility of interoperability among chargers of various standards, so as to further facilitate the use of EVs; and
- (10) review the mode of subsidization and effectiveness of the Pilot Green Transport Fund, with a view to expediting the promotion of the switch of public transport and commercial vehicles to EVs;
- (11) launch an official mobile application for EVs to provide drivers with information about EVs, including real-time information on the availability of charging-equipped parking spaces across the territory and the latest official information in relation to EVs; and

- (12) offer financial incentives to attract vehicle owners to switch to EVs, including conducting a study on offering ex gratia payments to owners of fuel-engined vehicles replacing such vehicles with EVs; and
- (13) allocate resources to enhance publicity and promotion to encourage property owners to install more charging facilities in the car parks of private housing estates, so as to perfect the charging network in the community.

**Subcommittee to Study Issues Relating to the
Development of Electric Vehicles**

List of relevant papers

Date	Event	Paper
March 2014	Subcommittee on Proposed Resolution under Section 5(4) of the Motor Vehicles (First Registration Tax) Ordinance	Report of the Subcommittee (LC Paper No. CB(1)1078/13-14)
24 March 2014	Meeting of Panel on Environmental Affairs ("EA Panel")	Administration's paper on "Progress of the Pilot Green Transport Fund" (LC Paper No. CB(1)1104/13-14(06)) Minutes of meeting (LC Paper No. CB(1)1654/13-14)
26 January 2015	Policy briefing cum meeting of EA Panel	Administration's paper on "2015 Policy Address – Policy initiatives of Environment Bureau: Environmental protection" (LC Paper No. CB(1)436/14-15(01)) Minutes of meeting (LC Paper No. CB(1)674/14-15)
23 March 2015	EA Panel meeting	Administration's paper on "2015-16 Budget-related initiatives of Environmental Protection" (LC Paper No. CB(1)652/14-15(03)) Minutes of meeting (LC Paper No. CB(1)847/14-15)
21 July 2015	EA Panel meeting	Administration's paper on "Progress report on the Pilot Green Transport Fund" (LC Paper No. CB(1)1113/14-15(01)) Minutes of meeting (LC Paper No. CB(1)1270/14-15)

Date	Event	Paper
25 January 2016	Policy briefing cum meeting of EA Panel	Administration's paper on "2016 Policy Address – Policy initiatives of Environment Bureau: Environmental protection" (LC Paper No. CB(1)459/15-16(03)) Minutes of meeting (LC Paper No. CB(1)739/15-16)
23 January 2017	Policy briefing cum meeting of EA Panel	Administration's paper on "2017 Policy Address – Policy initiatives of Environment Bureau: Environmental protection" (LC Paper No. CB(1)451/16-17(01)) Minutes of meeting (LC Paper No. CB(1)683/16-17)
27 February 2017	EA Panel meeting	Administration's paper on "Promoting the Use of Electric Vehicles" (LC Paper No. CB(1)574/16-17(04)) Minutes of meeting (LC Paper No. CB(1)783/16-17) Administration's follow-up papers (LC Paper No. CB(1)725/16-17(01)) (LC Paper No. CB(1)881/16-17(02))
22 May 2017	EA Panel meeting	Administration's paper on "Improvement of roadside air quality" (LC Paper No. CB(1)949/16-17(03)) Minutes of meeting (LC Paper No. CB(1)1369/16-17)
30 October 2017	Policy briefing cum meeting of EA Panel	Administration's paper on "2017 Policy Address – Policy initiatives of Environment Bureau: Environmental protection" (LC Paper No. CB(1)75/17-18(01)) Minutes of meeting (LC Paper No. CB(1)399/17-18)

Date	Event	Paper
26 February 2018	EA Panel meeting	Administration's paper on "Promoting the Use of Electric Vehicles" (LC Paper No. CB(1)602/17-18(03)) Minutes of meeting (LC Paper No. CB(1)742/17-18)
11 April 2018	Motion on "Promoting the Popularization of Electric Vehicles" passed at the Council meeting	Wording of the motion passed Progress report
19 December 2018	EA Panel meeting	Administration's paper on "Progress on Improving Roadside Air Quality" (LC Paper No. CB(1)319/18-19(04)) Minutes of meeting (LC Paper No. CB(1)720/18-19)
28 January 2019	EA Panel meeting	Administration's paper on "Promoting the Use of Electric Vehicles" (LC Paper No. CB(1)487/18-19(03)) Minutes of meeting (LC Paper No. CB(1)917/18-19)
28 October 2019	EA Panel meeting	Administration's paper on "2019 Policy Address – Policy initiatives of Environment Bureau: Environmental protection" LC Paper No. CB(1)31/19-20(03) Minutes of meeting LC Paper No. CB(1)251/19-20)
16 December 2019	EA Panel meeting	Administration's paper on "Overall strategy for improving air quality" (LC Paper No. CB(1)233/19-20(03))
22 January 2020	EA Panel meeting	Administration's paper on "A Series of Measures to Improve Environment and Air Quality" (LC Paper No. CB(1)336/19-20(04))

Hyperlinks to relevant Council Questions:

Date	Council Question
14 December 2016	Press release on Council question (oral) raised by Hon Frankie YICK
31 May 2017	Press release on Council question (written) raised by Hon HUI Chi-fung
25 October 2017	Press release on Council question (written) raised by Hon CHAN Hak-kan
13 December 2017	Press release on Council question (oral) raised by Hon CHAN Hak-kan
31 January 2018	Press release on Council question (oral) raised by Hon Kenneth LEUNG
7 February 2018	Press release on Council question (oral) raised by Hon Charles Peter MOK
24 October 2018	Press release on Council question (written) raised by Hon Tanya CHAN
12 December 2018	Press release on Council question (written) raised by Hon Jeremy TAM
12 December 2018	Press release on Council question (oral) raised by Hon Kenneth LEUNG
27 February 2019	Press release on Council question (written) raised by Hon Elizabeth QUAT
22 May 2019	Press release on Council question (written) raised by Hon CHAN Hak-kan
29 May 2019	Press release on Council question (written) raised by Hon Dennis KWOK
20 November 2019	Press release on Council question (written) raised by Hon Tanya CHAN

Date	Council Question
4 December 2019	Press release on Council question (written) raised by Hon Kenneth LEUNG

Hyperlinks to other documents:

28 January 2019	"Eligibility criteria for the "One-for One Replacement" Scheme (Revised on January 28 2019)" issued by the Transport Department
22 October 2019	"Direct Investigation Report - Government's Planning and Arrangements for Ancillary Facilities for Electric Private Vehicles" published by the Ombudsman (Chinese version only) Executive Summary of the Report