

LCQ3: New energy vehicles

Following is a question by the Hon Dominic Lee and a reply by the Secretary for Environment and Ecology, Mr Tse Chin-wan, in the Legislative Council today (May 22):

Question:

The 2023 Policy Address has proposed to promote the new energy transport industry, continue to test out more new energy vehicles including hydrogen double-deck buses and hydrogen street washing vehicles, formulate the Strategy of Hydrogen Development in Hong Kong in the first half of this year, and commence the preparatory work for the legislative amendments pertaining to the production, storage, transportation and application of hydrogen fuel. In this connection, will the Government inform this Council:

- (1) of the number of registered new energy vehicles and its percentage in the total number of vehicles in Hong Kong, as well as the number of new energy vehicles owned by the Government and its percentage in the total number of vehicles owned by the Government as at the end of last month;
- (2) of the operating performance of hydrogen double-deck buses and hydrogen street washing vehicles as tested by the Government, and whether it has studied if such hydrogen-powered vehicles can be included as one of the options for new energy transport; whether the Government has drawn up a timetable for releasing the Strategy of Hydrogen Development in Hong Kong; and
- (3) as there are views that the technology of electric private cars (PCs) is rather mature, whether the authorities will, for the purpose of promoting electrification of PCs, take a more aggressive approach in setting a date for the complete phasing out of fuel-propelled and hybrid PCs, and roll out more measures to encourage the use of electric PCs, so as to achieve as early as possible zero emissions from PCs?

Reply:

President,

To align with the national "dual carbon" targets, the Government of the Hong Kong Special Administrative Region (HKSARG) strives to achieve carbon neutrality before 2050 and reduce the total carbon emissions of Hong Kong from the 2005 level by half before 2035. It is a global trend to promote development of new energy transport to reduce carbon emissions from the transport sector. The HKSARG announced the Hong Kong Roadmap on Popularisation of Electric Vehicles, Clean Air Plan for Hong Kong 2035, and Hong Kong's Climate Action Plan 2050 successively in March, June and October 2021. These blueprints and roadmap cover policy directions and future targets in various areas to promote the adoption of new energy transport

technologies, so as to guide Hong Kong towards zero vehicular emissions before 2050.

In consultation with the Transport and Logistics Bureau, Transport Department, and the Government Logistics Department (GLD), I would like to reply to the question raised by the Hon Lee as follows:

(1) As of the end of April 2024, there were 93 173 registered new energy vehicles in Hong Kong, accounting for 10.3 per cent of the total number of registered vehicles.

According to the information provided by the GLD, there were a total of 7 158 vehicles in the establishment of the government fleet as at December 2023, among which 179 were electric vehicles (EVs), accounting for 2.5 per cent of the total number of vehicles in government fleet. There were a total of 1 853 saloon cars in the establishment of the government fleet, among which 159 were EVs, accounting for 8.6 per cent of the total number of government saloon cars.

(2) Apart from EVs, hydrogen vehicles are also a kind of new energy transportation of which the HKSARG is promoting. The Government set up the Inter-departmental Working Group on Using Hydrogen as Fuel (the Working Group) in 2022 to co-ordinate preparatory work of bureaux and departments for the use of hydrogen fuel locally, as well as to promote the local adoption of hydrogen energy through trial projects so as to explore its future development potential and opportunities in Hong Kong.

As at April 2024, the Working Group has successively reviewed and given agreement-in-principle to 14 applications of hydrogen energy trial projects, of which three have already commenced the trial, including the Citybus Limited's first hydrogen bus and its hydrogen refuelling facility. This hydrogen bus started the passenger service officially in February 2024 for trial operation in three Kowloon urban routes in phases, namely 20, 22M and 20A. The Working Group is collecting the operational data of the hydrogen bus for assessing its operational performance.

On the other hand, three hydrogen fuel cell street washing vehicles of the Food and Environmental Hygiene Department are coming to Hong Kong successively. The statutory vehicle examination processes are underway. It is expected that their trial would be launched later this year in tandem with the trial of a public hydrogen refuelling station in Au Tau, Yuen Long set up by Sinopec (Hong Kong) Limited, so as to use the station for hydrogen fuel replenishment during the trial period. The potential applications of hydrogen energy in future can be very wide. In new energy transportation, hydrogen energy especially suits the needs of green transformation of medium to large-sized, and medium to long-haul, vehicles. This is also the reason we chose these pilot projects.

The Chief Executive announced in the 2023 Policy Address that the HKSARG will formulate the Strategy of Hydrogen Development in Hong Kong (the Development Strategy) in the first half of this year. We have canvassed views

from the industry and experts, and plan to publish the Development Strategy next month to make early preparation for the wider application of hydrogen energy in the future, so that Hong Kong can seize the various opportunities brought by the development of hydrogen energy.

(3) The Hong Kong Roadmap on Popularisation of Electric Vehicles sets out in a concrete manner the long-term policy objectives and plans to promote the adoption of EVs and their associated supporting facilities. Major initiatives include setting a target to cease new registration of fuel-propelled private cars (PCs) in 2035 or earlier, promoting the use of electric private cars (e-PCs), expanding the EV charging network, and creating an environment with support facilities that is conducive for the popularisation of EVs. Sufficient time will be provided for stakeholders to prepare for the transition to EVs. In particular, on the provision of a comprehensive public and private charging network to support the popularisation of e-PCs, the Chief Executive set a target in the 2023 Policy Address to increase the total number of public and private parking spaces with charging infrastructure in Hong Kong to about 200 000 by mid-2027.

The HKSARG has made notable progress in promoting the popularisation of EVs. In terms of e-PCs, the percentage of EVs among newly registered PCs in Hong Kong has soared significantly in recent years, increasing from 6.3 per cent in 2019 to 64.6 per cent in 2023. The HKSARG will continue to expand the charging network and supporting facilities on multiple fronts to provide a good environment and conducive conditions to encourage car owners to switch to EVs.

Although the technology of e-PCs is increasingly mature, there are still hundreds of thousands of fuel-propelled and hybrid private cars on the road in Hong Kong. Time is required for car owners to switch to e-PCs. On the other hand, EV manufacturers also need time to build up the types and models of their products. The choice of e-PC types and models in the current market is not as wide as those of conventional petrol PCs. Even though e-PCs have a huge fuel cost advantage over conventional petrol private cars, there is still a considerable number of users who choose conventional petrol PCs for various reasons. Therefore, it is not yet the time now to decide on a more aggressive date for complete phasing-out of fuel-propelled and hybrid PCs. The HKSARG will closely monitor the supply of e-PCs in the market and the progress of the popularisation of e-PCs, and review from time to time whether the target to cease new registration of fuel-propelled and hybrid PCs in 2035 can be further advanced.

Thank you, President.