

## LCQ12: Electric vehicles adopting a “one-pedal” driving mode

Following is a question by the Hon Luk Chung-hung and a written reply by the Secretary for Transport and Logistics, Mr Lam Sai-hung, in the Legislative Council today (June 14):

Question:

It has been reported that electric vehicles (EVs) produced by a certain brand in recent years adopt a mandatory "one-pedal" driving mode (the mode) (i.e. the driver can slow down and stop the vehicle by just releasing the accelerator pedal without the need to depress the brake pedal). However, the motor vehicles of that brand have been involved in a number of serious traffic accidents on the Mainland in recent years. There are views that one of the causes of those accidents was that under the mode, the drivers concerned were negligent in depressing the brake pedal, making it easy to depress the accelerator pedal by mistake in the event of an emergency. Furthermore, the State Administration for Market Regulation announced recently that starting from May 29 this year, the brand would recall in accordance with the relevant ordinances more than 1.1 million EVs produced by it and offer to add newly developed functions to those vehicles, so as to lower the risk of collision arising from drivers' excessive driving speed resulting from depressing the accelerator pedal hard for a long time. In this connection, will the Government inform this Council:

(1) of the number of newly registered EVs adopting the mode in the past five years;

(2) whether it has compiled statistics on the number of traffic accidents involving electric private cars adopting the mode and their casualties, as well as the respective proportions of such numbers in the total number of traffic accidents involving all private cars and their casualties, in the past five years;

(3) whether it has studied the correlation between the driving habits formed under the mode and traffic accidents; if so, of the details; if not, the reasons for that; and

(4) whether the Government will consider, by following the practice of the State Administration for Market Regulation, requiring the aforesaid brand to recall the vehicles concerned for software updates, so as to allow the drivers concerned to choose to adopt the mode or the traditional driving mode; if so, of the timetable; if not, the reasons for that?

Reply:

President,

The Transport Department (TD) has been strictly monitoring the quality of imported vehicles to ensure vehicle safety. Before registration and licensing, vehicles intended for use on local roads must go through the vehicle type approval and/or pre-registration examination of the TD to ensure that the specifications, design, construction and safety equipment of the relevant vehicles are in compliance with the Road Traffic Ordinance (Cap. 374) and its subsidiary legislation. In addition, vehicle manufacturers and their authorised dealers in Hong Kong are also required to submit detailed technical information and certifications of the vehicles concerned, such as vehicle test reports, to substantiate that the vehicles comply with the approval requirements and are suitable for use in Hong Kong.

My consolidated reply to questions raised by the Hon Luk is as follows:

The Government has been closely monitoring the latest developments in vehicle technology and new energy vehicles in the Mainland and around the world, as well as relevant safety information.

According to the prevailing legislation, all vehicles registered and licensed in Hong Kong are required to have independent brakes in order to comply with Regulation 16 of the Road Traffic (Construction and Maintenance of Vehicles) Regulations (Cap. 374A). In accordance with relevant statutory requirements, all registered and licensed vehicles (including electric vehicles (EVs)) in Hong Kong are equipped with independent brakes for stopping the vehicles. Therefore, there are currently no registered EVs with mandatory "one-pedal" driving mode in Hong Kong, and hence there is no statistical information on traffic accidents and casualties involving EVs using such mode.

Generally speaking, EVs are equipped with "regenerative braking" function. When a driver reduces the pressure on the accelerator pedal or does not step on the accelerator pedal, the EV will automatically activate the "regenerative braking" function. The kinetic energy of the vehicle will be converted to electrical energy for recharging the battery of the EV. The braking effect will occur and the speed of the vehicle will then be reduced.

Although the "regenerative braking" function can slow down the vehicle, the braking effect associated with this function is not a braking system as required by the aforementioned Cap. 374A. Therefore, every motor vehicle must still be fitted with an effective braking system and brakes that comply with the statutory requirements. For the sake of safety, drivers should still use the braking system and brake pedal for braking when driving a vehicle with "regenerative braking" function.

Regarding the recall of EVs of certain brand in the Mainland, the TD has immediately contacted the Hong Kong authorised dealer of the brand to understand the situation, and inquired whether the EV models being sold in Hong Kong were involved. According to the information provided by the dealer, the EV models sold by the brand in Hong Kong are different from the versions sold in the Mainland. As far as the Hong Kong version is concerned, drivers can set the "regenerative braking" function and its braking effect according to their own preference.

The TD will continue to closely monitor the development of vehicle technology and information on vehicle safety recalls in the Mainland and around the world, and follow up with relevant vehicle dealers in Hong Kong in a timely manner.