CONTROLLING OFFICER'S REPLY

(Question Serial No. 4725)

Head: (60) Highways Department

Subhead (No. & title): (-) Not Specified

Programme: (4) Technical Services

Controlling Officer: Director of Highways (K K LAU)

Director of Bureau: Secretary for Transport and Housing

Question:

Regarding the use of lighting fixtures with better energy-efficiency for roads and vehicle tunnels in Hong Kong, please inform this Committee on the following:

(a) the work of the Highways Department (HyD) to install more lighting fixtures with better energy-efficiency for roads and vehicle tunnels, including light emitting diode (LED) or other energy-saving lighting fixtures over the past three years; and
(b) will the HyD consider progressively replacing road lights with LED or other energy-saving lighting fixtures? If so, what are the details in this year for the aforesaid replacement?

Asked by: Hon WU Chi-wai (Member Question No. 150)

Reply:

(a) In terms of efficiency in energy saving, the lamps and lanterns used in the existing public lighting system are already at the top end of similar products currently available in the market. Nevertheless, the HyD has been monitoring the development of new energy-saving lighting facilities and exploring their applications in Hong Kong.

It was noted that LED road lights should have better colour rendering and higher reliability than high pressure sodium lamps (which are now widely adopted in Hong Kong), but their cost-effectiveness was low as the prices of LED road lights meeting the necessary certification (such as lighting test, safety and protection certification) were very high. Nonetheless, the HyD commenced a trial scheme in 2009 and has been closely monitoring the performance of a total of 171 LED road lights installed under the trial scheme in seven districts (i.e. the Eastern, Wan Chai, Kowloon City, Kwun Tong, North, Sai Kung and Sha Tin districts). The findings of the trial so far have confirmed the same.

Under the latest market situation, the prices of low- and medium-wattage LED lights have dropped significantly, but are still higher than those of low- and medium-wattage high pressure sodium lamps. Despite the merits of energy saving due to better colour rendering, the cost-effectiveness of low- and medium-wattage LED lights is not significant enough to justify utilisation on a large scale at the moment.

On the other hand, only a few models of high-wattage LED lights are available in the market, and they are far more expensive than high-wattage high pressure sodium lamps. Utilisation of high-wattage LED lights is therefore not considered justifiable at the moment.

The numbers of LED lighting installed in the past three years (2013-14 to 2015-16) are set out below:

	2013-14	**2014-15**	**2015-16**
Numbers of LED road light installed	24	29	31
Numbers of LED light installed at underpass	0	0	54
Numbers of LED light installed at covered public transport interchange	0	0	47

(b) The HyD will continue to replace the aged lighting by installing more low- and medium-wattage LED lights as appropriate under our trial scheme with a view to further assessing the performance and cost-effectiveness of LED lights. In 2016-17, the HyD will install about 200 LED lights at covered public transport interchanges and seven LED road lights. Moreover, the HyD is planning to commence trial use of LED lights for directional sign lighting.

- End -