

## LCQ21: Smart recycling system

Following is a question by the Hon Lillian Kwok and a written reply by the Secretary for Environment and Ecology, Mr Tse Chin-wan, in the Legislative Council today (January 24):

Question:

The Environmental Protection Department launched a Pilot Programme on Smart Recycling System in November 2020. It firstly introduced smart recycling bins in several GREEN@COMMUNITY facilities to try out the application of the system concerned and, from March 2023 onwards, it progressively installed smart recycling bins at housing estates, villages, shopping malls, universities and government venues. In this connection, will the Government inform this Council:

- (1) of the weight of recyclables collected by the smart recycling bins in various districts in Hong Kong, with a breakdown by type of recyclables;
- (2) whether it will regularly review the recycling data of the smart recycling bins in various districts, and increase the number of smart recycling bins in a timely manner; if so, of the details; if not, the reasons for that;
- (3) whether it will increase the amount of subsidies from the Recycling Fund for smart recycling bin-related projects; if so, of the details; if not, the reasons for that; and
- (4) whether it will formulate long-term publicity and education plans on environmental protection and recycling; if so, of the details; if not, the reasons for that?

Reply:

President,

The Environmental Protection Department (EPD) launched a Pilot Programme on Smart Recycling Systems (the Pilot Programme) in end-2020 to test the local application of smart recycling devices connected with Internet of Things (IoT) technology, with a view to enhancing the efficiency of community recycling services. Starting from mid-2022, the Pilot Programme has progressively increased the number of application points and expanded the scope of technical trial so as to build up experience for reference in mapping out the direction for the long-term development of local application of smart recycling systems. The smart recycling systems currently comprise smart recycling bins, smart balances, automatic gift redemption units, as well as supporting facilities (including a central data system which can support the GREEN\$ Electronic Participation Incentive Scheme together with a compatible system platform for local application). The reply to the question

raised by the Hon Lillian Kwok is as follows:

(1) Since end-2022, smart recycling bins have been installed in some Recycling Stations and Recycling Stores under the Pilot Programme. Starting from March 2023, smart recycling bins have been progressively set up in public housing estates, private housing estates, villages, shopping malls, universities and government venues, etc. So far, the smart recycling bins installed at 76 locations have all been put into service, which have received positive feedbacks from the public alongside the gradual increase in the quantity of recyclables collected. As at end 2023, these smart recycling bins at the 76 locations altogether collected a total of about 3 550 kilograms (kg) of recyclables per day, which are categorised as follows:

Type of Recyclables	Paper	Metals	Plastic Bottles	Other Plastics	Glass Bottles	Total Quantity of Recyclables Collected
Daily Quantity of Recyclables Collected (kg)	1 700	300	560	540	350	3 550

Note: The types of recyclables collected by smart recycling bins at different locations vary slightly from two to five types, depending on the requirements of the locations where the bins are installed.

(2) Since the launch of the Pilot Programme, the EPD has been persistently monitoring the usage and recycling data of the smart recycling systems at different locations. We are currently conducting a mid-term review on the Pilot Programme. Preliminary findings show that the operation of the smart recycling systems is generally smooth. The quality of recyclables collected by the smart recycling bins is better than that of the conventional recycling bins and the public responses are also positive. We will take into account the findings of the mid-term review to fine-tune the Pilot Programme as appropriate, such as adjusting the locations of setting up the smart recycling bins and increasing the number of smart recycling bins, subject to the availability of resources.

(3) At present, the Pilot Programme is implemented by the EPD with existing resources and without involving funding from the Recycling Fund or other sources. In reviewing the Pilot Programme and formulating the development strategy for the local application of smart recycling systems, we will take into consideration the application scope of the smart recycling systems (including smart recycling bins), their role in the overall strategy on community recycling support, system layout and scale, cost effectiveness and sources of funding, etc.

(4) The EPD has been committed to promoting waste reduction for all, educating the public about the separation of waste at source and clean recycling. To strengthen publicity and education on waste reduction and

recycling as well as on-site recycling support at the community level, the EPD established the Green Outreach in 2018 to provide outreaching services to the community. Through on-site guidance and hands-on demonstrations, the Green Outreach educates the public about the importance of waste reduction at source on a long-term and regular basis, encourages the public to practise separation of waste at source and clean recycling, disseminates the latest information on waste reduction and recycling and the related legal requirements to the community, and provides on-site assistance and recycling support to housing estates/residential buildings. In addition, the Green Outreach plans and implements publicity and education work to promote waste reduction and recycling in the community, including launching large-scale online and offline publicity and education activities, and conducting multimedia publicity programmes through social media and the Internet to encourage all members of the public to integrate waste reduction and recycling into their daily lives.

As of December 2023, the Green Outreach has conducted about 153 000 community visits, established connections with more than 4 500 property management companies and residents' organisations, which altogether provided waste reduction and recycling support for about 70 per cent of housing estates/residential buildings and villages in Hong Kong. In addition, the Green Outreach has organised more than 4 300 publicity and promotion activities in various forms to educate the public on separation of waste at source and clean recycling, offer training to property management companies/frontline cleansing workers, etc, on the proper handling of recyclables, and share the latest information on waste reduction and recycling and related legal requirements. These activities attracted a total of about 323 000 participants.