

CONTROLLING OFFICER'S REPLY

EEB(E)019

(Question Serial No. 1731)

Head: (42) Electrical and Mechanical Services Department

Subhead (No. & title): Not specified

Programme: (3) Energy Efficiency and Conservation, and Alternative Energy

Controlling Officer: Director of Electrical and Mechanical Services (POON Kwok-ying)

Director of Bureau: Secretary for Environment and Ecology

Question:

The Budget states that the Government will launch a Pilot Scheme on Building-Integrated Photovoltaics (Pilot Scheme) at the Electrical and Mechanical Services Department (EMSD) Headquarters to explore photovoltaic technology applications on the facades of government buildings. The Government will also continue to support public and private organisations in further utilising renewable energy with a view to striving towards carbon neutrality in Hong Kong. In this connection, would the Government inform this Committee of:

- (1) the objectives and details of the Pilot Scheme, including the involved parties, whether technology enterprises and research institutes will be invited to join and the criteria for selecting suitable enterprises and institutes, the estimation of annual electricity generation, the savings of Government expenditure, the expenditure on and timetable for the Pilot Scheme, etc.;
- (2) the reasons for choosing the EMSD Headquarters as the site for the Pilot Scheme, and whether software or hardware modifications are required to be made at the EMSD Headquarters, as well as the costs involved; and
- (3) the measures in place to continuously support public and private organisations in further utilising renewable energy?

Asked by: Hon CHIU Duncan (LegCo internal reference no.: 29)

Reply:

- (1) & (2) Through multi-disciplinary and inter-departmental collaboration (including the Electrical and Mechanical Services Department (EMSD), Buildings Department, Architectural Services Department and Fire Services Department), the Government will launch the Pilot Scheme on Building-Integrated Photovoltaics (BIPV) (Pilot Scheme) at the EMSD Headquarters to explore photovoltaic technology applications on the facades of buildings as

well as the supply of renewable energy (RE) to buildings. The project is currently under planning. We will announce the details in due course.

To formulate an appropriate proposal for the Pilot Scheme, the inter-departmental team will comprehensively take into consideration various factors of the existing EMSD Headquarters, including structural compatibility, appearance, insulation conditions at different facades of the building, operational situations, as well as repair and maintenance requirements, etc.

Apart from generating RE for the building, the Pilot Scheme can provide actual data for reference and evaluation. Based on the relevant data collected, the Government will assess the effectiveness and feasibility of BIPV from various aspects such as the actual power generation efficiency, performance in reducing indoor energy consumption as well as repair and maintenance requirements and expenditures, etc., so as to evaluate whether to extend the Pilot Scheme to other public and private organisations in the future.

- (3) The Government has been taking the lead in optimising the favourable conditions of premises and developing RE. In particular, the Government has earmarked a total of \$3 billion for installing RE facilities at government buildings and premises since 2017-18. As at December 2023, about \$2 billion has been approved for 226 projects, including installation of photovoltaic systems at government offices, government quarters, schools, recreation grounds-cum-rest gardens, reservoirs and pedestrian links, etc., as well as installation of waste-to-energy and hydro power systems at multiple sewage treatment plants. Among those 226 approved projects, 143 projects have been completed and the rest will be commenced as scheduled in the coming year. We expect that these projects will generate a total of about 25 million kilowatt-hours of electricity annually. In addition, to couple with the Feed-in Tariff (FiT) Scheme, the EMSD provides relevant information, guidance notes and technical guidelines, etc. on RE through the “HK RE Net” (website: <https://re.emsd.gov.hk>), sets up an enquiry hotline for answering enquiries and offering technical advice about RE to private organisations and the general public, and regularly organises activities such as seminars and briefings to introduce to relevant stakeholders the installation of RE facilities and the FiT Scheme, so as to encourage different sectors to make optimum use of their premises for the development of RE.

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