

**CONTROLLING OFFICER'S REPLY**

**(Question Serial No. 0160 )**

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 (Alfred W H SIT)  
Director of Bureau: Secretary for the Environment

Question:

As stated in the Indicators of Programme (3), the Electrical and Mechanical Services Department completed 3 studies on the application of innovative energy efficiency technologies in 2017 and planned to carry out 3 studies in 2018. In this connection, would the Government advise:

1. What were/are the manpower and expenditure involved of the studies in 2017 and 2018 respectively; and
2. What were the specific contents of the 3 studies in 2017? Was there any collaboration with the universities and the trade on the development of application of the technologies? If yes, what were the details? If no, what were the reasons?

Asked by: Hon LO Wai-kwok (Member Question No. (LegCo use): 5)

Reply:

The expenditure of the 3 applied researches completed in 2017-18 was about \$0.3 million and the estimated expenditure of the 3 applied researches to be conducted in 2018-19 is \$0.4 million. The workload will be absorbed by existing manpower.

The 3 studies in 2017-18 include (i) cogeneration and trigeneration; (ii) variable speed window-type room air conditioners; and (iii) passive drivers for light-emitting-diode (LED) lighting. During the study process of projects (i) and (ii), we consulted the trade on the application of the relevant energy efficiency technologies. The results of the researches show that both types of generation are suitable for applications with high demand for heating, cooling and electricity supply, while the variable speed window-type room air conditioners have demonstrated good energy saving performance and may be further promoted. As for project (iii), the installation of passive drivers for LED lighting in the trial site was completed and the three-year on-site tests on their energy saving performance and durability have commenced. The passive drivers for LED lighting is devised by a research of The University of Hong Kong. We have been carrying out tests on the drivers in collaboration with the innovative technology company concerned with a view to promoting the application of local innovative technologies.