

**CONTROLLING OFFICER'S REPLY**

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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:

The EMSD has increased its estimate from the revised estimate of \$391 million for 2019-20 to \$594.3 million for the current year, representing an increase of \$200 million. What is the reason for this significant increase? What is the “innovative energy efficiency” in the “research and development on application of innovative energy efficiency and renewable energy technologies” mentioned under the Programme? Is there any progress in this regard? For instance, how much energy is expected to be supplied upon completion of the research and development? How much of the increase in the estimate will be allocated for the research and development?

Asked by: Hon LAU Kwok-fan (LegCo internal reference no.: 22)

Reply:

The increase in the provision for 2020-21 is mainly for 3 policy measures, namely implementing new energy saving projects under the Green Schools 2.0 (i.e. installing energy saving equipment, such as variable-speed air-conditioners, light emitting diode lighting and real-time energy monitoring systems, etc., at the premises of primary and secondary schools); and enhancing 2 existing measures, i.e. retro-commissioning for existing major government buildings, and installing solar photovoltaic systems via the Solar Harvest at the premises of more schools (except government and profit-making schools) and welfare non-governmental organisations receiving recurrent subventions from the Social Welfare Department. The estimated expenditure for these 3 items for 2020-21 is \$179.3 million higher than the revised expenditure for 2019-20.

The “innovative energy efficiency technologies” mentioned under the Programme refer to the application studies on new technologies conducted by the Electrical and Mechanical Services Department (EMSD). The EMSD carries out trials on innovative energy efficiency and renewable energy technologies every year. The planned studies in 2020-21 include (i) indirect evaporative cooling system; (ii) plate-tube evaporative chiller; and (iii) balanced-wave energy saving technology, involving an estimated expenditure of \$2.8 million. The actual effectiveness of adopting the aforesaid new technologies will be evaluated through the studies. The EMSD will promote the technologies if they are proven effective.