Examination of Estimates of Expenditure 2013-14

CONTROLLING OFFICER'S REPLY TO INITIAL WRITTEN QUESTION

Reply Serial No.

ENB061

Question Serial No.

5036

Head:	42 Electrical Department	and Me	echanical Services	Subhead (No. & title):
<u>Progran</u>	<u>nme</u> :	(3)	Energy Efficiency and	d Conservation, and Alternative Energy
Controlling Officer:		Director of Electrical and Mechanical Services		
Director	r of Bureau:	Secre	tary for the Environme	nt

Question:

For the energy-saving projects undertaken by the Administration for the Government and public bodies, please advise:

- (a) the no. of energy-saving projects completed in the past 5 years (i.e. 2008-09 to 2012-13) by bureaux/ government departments/ public bodies, the total energy saving and associated expenditure;
- (b) the criteria of setting a maximum payback period of not more than 12 years for the projects. Would the payback period be extended, enabling more Government departments and public bodies to fufill the requirement for implementation of energy saving projects? If yes, please advise the details. If no, please advise the reason.
- (c) the energy saving measures commonly adopted in these projects and the respective average energy saving; and
- (d) whether the Administration has undertaken similar energy saving projects in public housing estates. If yes, please provide the details. If no, please advise the reason.

Asked by: Hon. TANG Ka-piu

Reply:

- (a) The Electrical and Mechanical Services Department (EMSD) has completed around 420 energy saving projects between 2008-09 and 2012-13 in a wide range of existing government and public bodies' buildings and venues. The total expenditure and estimated annual energy saving of these projects are about \$405 million and 38 million kWh respectively. Apart from these projects, all minor works and capital works projects adopt appropriate energy efficient features funded by resources allocated to project votes for individual capital projects.
- (b) In general, most electrical and mechanical services equipment such as electrical motors has an operating life of about 12 years or more. Hence, a target to achieve a payback period of not more than 12 years has been set for energy efficiency projects in existing government buildings on the grounds of engineering considerations and cost effectiveness of the projects. Notwithstanding this, it is an acceptable practice to consider a longer payback period on individual project basis if it can be justified (e.g. the concerned energy efficient equipment is found to have a longer operating life or the installations are for educational purposes).
- (c) Most of the energy-saving projects which are carried out by EMSD as mentioned above involve replacement of traditional exit signs with LED signs, retrofit for T8 fluorescent lightings / incandescent lamps with T5 fluorescent lighting or LED lighting, replacement of air-cooled air-conditioning systems

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with water-cooled air-conditioning systems, and adoption of energy efficient chillers, etc. As each project may have a different mix of energy efficient features, we are unable to provide separate breakdown for the energy savings of these commonly adopted features.

(d) Housing Authority has carried out energy-saving projects in public housing estates, such as retrofitting of traditional exit signs by T5 fluorescent tubes and electronic ballasts, replacement of bulkhead light fittings with electronic ballasts at common corridors and staircases, and replacement of aged lifts, etc.

Name in block letters: CHAN Fan

 Director of Electrical and

 Post Title:
 Mechanical Services

Date: 2.4.2013

Supplementary Notes for ENB061 [SFCQ-5036]

1. There is a similar question on Head 137 (ENB's envelope) and further breakdown for each financial year are as follows:

Financial Year	Expenditure	Energy Saving
	(\$ million)	(million kWh)
2007-08	43.3	7.7
2008-09	38.1	4.9
2009-10	180.1	17.4
2010-11	88.8	6.0
2011-12	58.2	6.6
2012-13	40.3 (revised estimate, subject	3.2
	to the final account)	
2013-14	2013-14 25.6 (approved estimate)	
Total 474.4		48.9

Remarks: The above information is also given in the reply to another question on Head 137 [SFCQ-2486].

- 2. Energy saving of 1 million kWh is equivalent to a reduction of 700 tonnes carbon dioxide emission.
- 3. Part (d) of this question has been cleared by Housing Authority. If asked, we can answered to the LegCo members that HA seldom have EE projects involving replacement of air-cooled air-conditioning system as what is mentioned the reply to part (c) of this question. It is because most of air-conditioned HA shopping centres have been sold to LINK around 2005.