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For discussion on 19 September 2011

Public Consultation on the Restriction of Sale of Energy-inefficient Incandescent Light Bulbs

PURPOSE

This paper invites Members' comments on our proposal to restrict the sale of energy-inefficient incandescent light bulbs (ILB).

BACKGROUND

2. The Government launched a three-month public consultation on the restriction of sale of energy-inefficient ILB on 12 August 2011. The consultation document is at **Annex**.

3. ILB, which work by heating the tungsten filament, are not energy-efficient as 90% of the electricity consumed will be lost as heat whereas only 10% is used for lighting. As lighting on average accounted for around 15% of total electricity consumption in Hong Kong in the past decade, replacement of ILB by energy-efficient lighting products will achieve substantial saving in power consumption.

4. In the 2008-09 Policy Address, the Government committed to conducting a study on progressively replacing ILB by energy-efficient lighting products to examine whether the sale of ILB should be restricted by legislation. The relevant consultancy study has been completed.

5. Currently, the use of energy-efficient lighting products has been widely promoted around the world to replace ILB. We have taken into account the overseas regulatory regimes and the supply of replacement options for ILB in Hong Kong etc., in formulating Government's proposal to restrict the supply of ILB in phases in the consultation document. The proposal seeks to reduce energy consumption and carbon dioxide emissions, thereby mitigating the impact of climate change.

Overseas regulatory regimes

6. According to the consultancy study, many countries and regions have implemented or planned for the phasing out of ILB. Some of them adopt mandatory measures, while others resort to voluntary measures to encourage and push for changes.

7. ILB can be classified into reflector and non-reflector types. Given the limited availability of substitutes for reflector type ILB, many countries and regions focus their regulatory efforts on phasing out non-reflector type ILB which are implemented in stages. Given the prevalence of general lighting service (GLS) lamps and the availability of energy-efficient substitutes, many countries opted to phase out GLS lamps first, to be followed by other types of ILB.

8. On the other hand, some countries such as Japan opted for a voluntary approach by coming into agreement with retailers and manufacturers to cease replenishing stocks and supply of ILB within a specified timeframe.

Replacement options

9. In considering whether sufficient and viable replacement options are available for ILB, due regards have to be given to their service life, colour rendering, colour temperature, lamp cap, efficacy, wattage range, lighting control, etc.. Taking into consideration these factors and the availability of substitutes in the market, we consider that non-reflector type ILB can by and large be replaced by more energy-efficient types of lamps, such as compact fluorescent lamps and Light Emitting Diode (LED) lamps, etc.

PROPOSAL

10. We propose to restrict the supply of energy-inefficient non-reflector type ILB by phases through legislation. We propose that the initial phase of the mandatory scheme (the Scheme) should cover 25 watt (W) or above non-reflector type ILB, which operates at a single phase electricity supply of nominal voltage of 220 volts (V), including GLS lamps, candle shape, fancy round and other decorative lamps, but excluding tungsten halogen lamps. For the aforesaid lamps, we propose –

(a) to prohibit the supply of those lamps that cannot meet the minimum energy performance standards (MEPS); and

(b) that the supply of those lamps that can meet the MEPS should be governed by a registration system.

11. We propose to make reference to overseas mandatory schemes in determining suitable MEPS to be adopted in Hong Kong.

12. The coverage of the initial phase of the Scheme is outlined above. We will conduct a review in future and consider extending the Scheme to cover other types of lamps such as tungsten halogen lamps as appropriate.

Potential benefits

13. As most 25W or above non-reflector type ILB supplied in Hong Kong cannot meet the prevailing MEPS adopted overseas, the adoption of MEPS for the Scheme will effectively reduce the supply of such lamps in the local market, thereby achieving reduction in energy consumption and carbon dioxide emissions.

14. We estimate that the implementation of the Scheme can bring about a saving in electricity of up to 390 GWh per annum, which yields a potential annual saving of about $390 million in electricity bills and a reduction of 273,000 tonnes of carbon dioxide emissions.

PUBLIC CONSULTATION

15. We are consulting the public specifically on the following issues –

(a) whether Hong Kong should restrict the supply of energy-inefficient ILB by mandatory scheme, voluntary measures or leaving it to market forces;

(b) the types of ILB that should be restricted if a mandatory scheme is introduced; and

(c) whether Hong Kong should adopt the minimum energy performance standards approach in phasing out ILB.

16. The public consultation will end on 11 November 2011. The consultation document and leaflet are available at the regional offices of the Environmental Protection Department, public libraries and the Public Enquiry Service Centres of the Home Affairs Department, and can be downloaded from the website of the Environment Bureau. The Government will also consult relevant advisory committees, professional bodies, major chambers of commerce and the lighting trade.

ADVICE SOUGHT

17. Members are invited to advise on the proposal set out in paragraphs 10-12 above.

Environment Bureau
Electrical and Mechanical Services Department
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