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ACE Paper 5/2008
For discussion

Mandatory Implementation of the Building Energy Codes

PURPOSE

This paper seeks Members' views on the proposed mandatory implementation of the Building Energy Codes (BECs).

BACKGROUND

2. One of the issues that tops the agenda of the international community is climate change. Hong Kong is committed to doing our part in improving the regional environment and fulfilling the applicable convention and consensus. We will honor our pledge and seek to achieve the reduction goal adopted in the Asia-Pacific Economic Co-operation Leaders' Declaration on Climate Change, Energy Security and Clean Development in September 2007, i.e. to reduce energy intensity by at least 25% by 2030 (with 2005 as the base year). As Hong Kong is a commercial city with limited industrial operations, we have greater potential to improve energy efficiency and reduce our greenhouse gas emissions by promoting energy efficiency in buildings. This will also help address the growing concerns of local air quality.

3. Since 1998, the Electrical and Mechanical Services Department (EMSD) has issued five sets of BECs, covering four key types of fixed building services installations – lighting, air-conditioning, electrical and lift and escalator, and the performance-based BEC – and has been operating the voluntary Hong Kong Energy Efficiency Registration Scheme for Buildings (HKEERSB).

4. However, voluntary compliance with the BECs does not appear to be forthcoming in Hong Kong. We consider it necessary to pursue mandatory

implementation of the BECs to complement market driven changes. It is in fact a well-established international practice to require buildings to comply with minimum energy efficiency standards by means of legislation. For example, the Mainland and some overseas countries, including Australia, Singapore, the United Kingdom and the United States have implemented minimum energy efficiency requirements for buildings.

5. On 28 December 2007, the Government launched a three-month public consultation on a proposal to introduce mandatory implementation of the BEC for certain new and existing buildings, with an aim of improving energy efficiency of buildings, alleviating global warming, and combating air pollution.

6. Through the consultation exercise, we would like to seek the public and relevant stakeholders' view on different aspects of the proposed mandatory scheme, including whether Hong Kong should pursue the mandatory implementation of the BECs; what broad categories of buildings should be covered; and whether we should accept standards higher than the existing ones under the HKEERSB. The consultation document (at Annex) sets out the Administration's proposals on the mandatory implementation of the scheme as follows –

- (a) new commercial buildings and the communal areas of new residential and industrial buildings in both the private and public sectors as well as major retro-fitting works in existing buildings should comply with the BECs promulgated by EMSD. The list of buildings with Certificates of Compliance issued will be made available for public inspection;
- (b) to enhance energy efficiency, energy audits are required for certain buildings once every 10 years. The results of the audits will be made available to occupants; and
- (c) to complement the proposed legislative scheme, buildings that have exceeded the minimum building energy efficiency standards by a prescribed percentage will be recognised by an energy mark through a voluntary administrative scheme.

7. It is estimated that for new buildings, the implementation of the proposals will result in energy saving of 2.8 billion kWh in the first decade, which contributes to a reduction in carbon dioxide emission of 1.96 million tonnes. An additional capital outlay in the region of 3% - 5% of the building construction cost may have to be

incurred in return for about 10% - 15% annual saving in energy bills. On average, the payback period for the additional capital investment is six years.

ADVICE SOUGHT

8. Members are requested to comment on the proposals set out in the consultation document.