# 立法會 Legislative Council

LC Paper No. CB(1) 2779/08-09 (These minutes have been seen by the Administration)

Ref: CB1/PL/EA/1

#### **Panel on Environmental Affairs**

# Minutes of meeting held on Wednesday, 15 July 2009, at 2:30 pm in Conference Room A of the Legislative Council Building

**Members present**: Hon Audrey EU Yuet-mee, SC, JP (Chairman)

Hon CHAN Hak-kan (Deputy Chairman)

Ir Dr Hon Raymond HO Chung-tai, SBS, S.B.St.J., JP

Hon James TO Kun-sun Hon LAU Kong-wah, JP

Hon Miriam LAU Kin-yee, GBS, JP

Hon Andrew CHENG Kar-foo Hon Albert CHAN Wai-yip

Hon LEE Wing-tat

Hon Jeffrey LAM Kin-fung, SBS, JP Prof Hon Patrick LAU Sau-shing, SBS, JP

Hon KAM Nai-wai, MH Hon Cyd HO Sau-lan Hon CHAN Kin-por, JP

Dr Hon Priscilla LEUNG Mei-fun

**Members absent** : Hon WONG Yung-kan, SBS, JP

Hon CHEUNG Hok-ming, GBS, JP

Public officers attending

: For item III

Mr Edward YAU

Secretary for the Environment

Miss Katharine CHOI

Principal Assistant Secretary for the Environment

(Energy)

**Environment Bureau** 

Mr Alfred SIT

Assistant Director / Energy Efficiency

Electrical and Mechanical Services Department

Mr LI Kwok-keung

Chief Engineer / Energy Efficiency B,

Electrical and Mechanical Services Department

#### For item IV

Dr Kitty POON

Under Secretary for the Environment

Miss Katharine CHOI

Principal Assistant Secretary for the Environment

(Energy)

**Environment Bureau** 

Mr Alfred SIT

Assistant Director /Energy Efficiency

Electrical and Mechanical Services Department

Mr WONG Lap-chi

Senior Engineer / Energy Efficiency A4

Electrical and Mechanical Services Department

#### For item V

Dr Kitty POON

Under Secretary for the Environment

Miss Katharine CHOI

Principal Assistant Secretary for the Environment

(Energy)

**Environment Bureau** 

**Clerk in attendance**: Miss Becky YU

Chief Council Secretary (1)1

**Staff in attendance** : Mrs Mary TANG

Senior Council Secretary (1)2

Miss Mandy POON

Legislative Assistant (1)4

Action - 3 -

### I. Confirmation of minutes and matters arising

(LC Paper No. CB(1) 2196/08-09 — Minutes of the meeting held on 25 May 2009

LC Paper No. CB(1) 2197/08-09(01) — List of follow-up actions

LC Paper No. CB(1) 2197/08-09(02) — List of outstanding items for discussion)

The minutes of the meeting held on 25 May 2009 were confirmed.

# II. Information paper issued since last meeting

2. <u>Members</u> noted the following information papers which had been issued since last meeting -

LC Paper No. CB(1) 2183/08-09 — Administration's reply to Hon Mrs Regina IP LAU Suk-yee's

letter regarding noise pollution from large commercial television screens

(English version only)

LC Paper No. CB(1) 2187/08-09

— Copied letter from the Hong Kong Retail Management Association to the Secretary for the Environment requesting a review of effectiveness of the environmental scheme following implementation of the **Product** Eco-responsibility (Plastic Shopping Bags) Regulation (English version only)

Referring to LC Paper No. CB(1) 2187/08-09, the Secretary for the Environment (SEN) said that the Administration had undertaken to conduct the review of the effectiveness of the environmental levy scheme following the implementation of the Product Eco-responsibility (Plastic Shopping Bags) Regulation. A baseline study on the disposal of plastic shopping bags (PSBs) had been completed to provide a basis for comparison before and after the implementation of the scheme. He also took the opportunity to thank the trades for their cooperation in taking forward the scheme which had been implemented smoothly. Ms Miriam LAU enquired about the timing for the review, and the arrangements for re-imbursing retailers for the extra handling changes incurred if payment of levy was made through credit cards. SEN said that it might be more worthwhile to conduct the review after the scheme had been implemented for one year. Meanwhile, there would be close monitoring on the operation of the scheme. As regards the extra handling cost incurred by retailers for payment of levy made through credit cards, SEN said that this would be quite insignificant when compared to the savings from the non-distribution of free PSBs. Ms LAU said it would not be fair to the retailers who had to bear the handling charges for collection of the levy on behalf of the Government.

4. As the Administration had advised that the consultation document on the Review of Air Quality Objectives would be released in late July 2009, the <u>Chairman</u> consulted members on the preferred date for holding a special meeting to discuss the subject. Taking into Ms Miriam LAU's advice that it was not the norm to hold meetings in August when LegCo was not in session, <u>members</u> agreed that a mutually convenient date in end July should be identified in consultation with the Administration. The <u>Chairman</u> said that as she would be away from Hong Kong in late July, the Deputy Chairman would be asked to chair the meeting.

(*Post-meeting note*: The special meeting was subsequently scheduled for 29 July 2009 at 10:45 am)

# III. Legislative framework of mandatory implementation of the Building Energy Codes

(LC Paper No. CB(1) 2197/08-09(03)

 Administration's paper on Legislative framework of mandatory implementation of the Building Energy Codes

LC Paper No. CB(1) 2197/08-09(04)

- Paper on mandatory implementation of Building Energy Codes prepared by the Legislative Council Secretariat (background brief)
- 5. <u>SEN</u> briefed members on the legislative framework of the mandatory implementation of the Building Energy Codes (BECs). The <u>Principal Assistant Secretary for the Environment (Energy)</u> (PAS(EG)) then gave a power-point presentation on the subject.

(*Post-meeting note*: The power-point presentation materials were circulated to members under LC Paper No. CB(1) 2298/08-09(01) on 15 July 2009.)

#### Membership of the Trade Task Force and the Technical Task Force

6. Professor Patrick LAU enquired about the memberships of the Trade Task Force and the Technical Task Force through which views on the legislative proposal were collected. PAS(EG) said that Trade Task Force mainly comprised representatives from professional bodies and trades, including the Hong Kong Institution of Engineers, Construction Industry Council, Professional Green Building Council, Engineers Registration Board, Hong Kong Association of Energy Engineers, Real Estate Developers Association of Hong Kong, Hong Kong Association of Property Management Companies Ltd, associations of small and medium enterprises etc. The Assistant Director / Energy Efficiency (AD/EE) added that there were altogether 33 organizations taking part in the Technical Task Force, including 15 professional bodies, 13 trade associations, three academic institutions and two Government Departments. Professor LAU opined that the Hong Kong Institute of

Architects and Hong Kong Institute of Surveyors should not be left out.

#### Post-enactment buildings

- 7. Ir Dr Raymond HO sought elaboration on the compliance procedures to be taken by developers/owners of post-enactment buildings under the proposed scheme. The Chairman also enquired about the information to be provided in the first self-declaration to the Director of Electrical and Mechanical Services (DEMS). The Chief Engineer/Energy Efficiency B advised that developers would need to obtain consent from the Building Authority for commencement of works for superstructure construction. After consent was given, developers would have to submit the first self-declaration to DEMS, declaring that suitable design provisions had been included to meet the BEC requirements. Upon completion of construction and within two months after the issue of the occupation permit, developers would need to submit a second self-declaration to confirm compliance with the requirements, setting out the details of compliance. Both declarations would have to be certified by competent persons.
- 8. Mr CHAN Hak-kan said that he would support in principle the mandatory implementation of BECs. He enquired whether post-enactment buildings would need to comply with all BECs covering lighting, air-conditioning, electrical as well as lift and escalator installations before a Certificate of Compliance Registration (COCR) could be issued, and whether environment-friendly features, such as greening and energy-efficient measures, would be included as part of the building requirements. AD/EE confirmed that post-enactment buildings under the proposed mandatory scheme would have to comply with all BECs before COCR could be issued. To encourage superior energy performance, recognition would be considered to be given to buildings that could achieve better energy efficiency.

#### Pre-enactment buildings

9. While supporting the need to promote energy efficiency and conservation in buildings, Mr KAM Nai-wai expressed concern that the proposed mandatory implementation of BECs would become an additional burden on pre-enactment building owners who already had to comply with various building requirements, including fire safety installations and electrical inspections etc. He enquired about the application of BECs to pre-enactment buildings undergoing major retrofitting works, and whether financial subsidy would be provided to assist owners in improving building energy efficiency in the longer term. PAS(EG) clarified that pre-enactment buildings were not required to comply with BECs unless there were major retrofitting works. Publicity efforts would be made to alert owners and building contractors on the need to comply with BECs when major retrofitting works were carried out in premises and common areas with an internal floor area of 500 square meters or above. She was pleased to inform members that since the launching of the funding scheme to improve building energy efficiency some three months ago, over 620 applications were received. The Administration was prepared to review the funding arrangements after the proposed mandatory scheme was put in place.

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Mr Albert CHAN was concerned about the impact of mandatory implementation of BECs on building owners, in particular those buildings without Incorporated Owners. Some owners of old buildings were wary about the introduction of new building requirements which might impose additional responsibilities on them. He opined that while the proposed scheme was introduced out of good intentions, it might cause much anxiety to owners. When implementing the mandatory scheme, the Administration should have regard to the difficulties faced by building owners in complying with the scheme, and provide the necessary assistance to alleviate their hardship. There was a need to assess the costs and benefits of the scheme to justify its implementation. He also failed to understand why the Environment Bureau could mandate owners to improve building energy efficiency on the one hand while allowing excessive lighting on flyovers and footbridges on the other. He further enquired if all Government buildings had to comply with BECs and if not, the mandatory implementation of BECs should not be applied to other buildings. Apart from buildings, consideration should be given to promoting the use of solar energy in village houses. To facilitate better understanding, the Administration was requested to provide a checklist on the measures to improve building energy efficiency.

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- 11. In response, SEN confirmed that all new Government buildings had to comply with BECs. However, pre-enactment buildings would not be affected by the proposed scheme unless they underwent major retrofitting works, in which case they would have to comply with BECs. Owners and tenants would eventually benefit from the energy savings from BEC installations because they would be able to enjoy the electricity savings in the long run. PAS(EG) supplemented that for post-enactment buildings, it was estimated that the mandatory implementation of BECs would result in energy savings of 2.8 billion kWh in new buildings, and a reduction in carbon dioxide emission of 1.96 million tonnes in the first decade. While an additional capital outlay in the region of 3% to 5% of the building construction cost might be incurred, about 10% to 15% annual savings in energy bills could be achieved in return. She added that efforts would be made to strengthen public education and partnership on energy savings in buildings.
- 12. Noting that responsible persons of major retrofitting works carried out in premises and common areas of pre-enactment buildings with an internal floor area of 500 square metres or above were required to obtain a Form of Compliance (FOC), Mr LEE Wing-tat enquired about the rationale for setting the threshold at 500 square metres. He was also concerned about the high maintenance cost for energy-efficient installations by owners. SEN said that when launching the public consultation on the mandatory scheme on BECs, careful consideration had been given to its applicability to pre-enactment buildings. It had been decided that pre-enactment buildings undergoing major retrofitting works with an internal floor area of 500 square metres or above should be required to obtain a FOC. While the threshold of 500 square metres was not set based on scientific findings, this was considered reasonable and acceptable. PAS(EG) added that the trades generally found the threshold for exemption at 500 square metres acceptable.

### **Energy audits**

- 13. Mr KAM Nai-wai opined that owners of buildings, particularly those smaller developments and those without Incorporated Owners, would have much difficulty in funding the high cost of energy audits, which were required to be conducted once every 10 years. PAS(EG) clarified that under the proposed legislative framework, energy audits were only required to be conducted in commercial buildings and not residential buildings.
- 14. Ms Cyd HO enquired if sufficient assistance would be provided for owners of pre-enactment buildings to improve the energy efficiency of their building services installations and to conduct energy audits, prior to the introduction of the legislation on the mandatory implementation of BECs. SEN said that buildings owners would have the incentives to improve building energy efficiency as they would benefit from savings in electricity costs. Judging from the number of funding applications to improve building energy efficiency, mostly from building management companies, building owners were willing to upgrade their building services installations to comply The Administration would assess the need for additional funding to assist existing building owners to comply with BECs, taking into account the number of applications received. In response to Ms HO's further question on the rationale for conducting energy audits once every 10 years, AD/EE advised that as the service life of building services installations was generally around 10 to 15 years, an energy audit conducted once every 10 years would provide an opportunity for building owners to review the need for replacement of these installations.
- 15. <u>Ir Dr Raymond HO</u> said that Hong Kong was way behind the Mainland in terms of building energy efficiency and he would support the mandatory implementation of BECs which had already been discussed for a long time. He said that members should not have to worry about the cost of energy audits because the fees charged by competent persons would be very reasonable. He also pointed out that the additional capital outlay of the building construction cost would unlikely be as high as 3% to 5%.

#### Competent persons

16. <u>Ir Dr Raymond HO</u> emphasized the need for the Administration to clearly spell out the qualifications of competent persons. <u>AD/EE</u> advised that Registered Professional Engineers and corporate members of the Hong Kong Institution of Engineers in electrical, mechanical, building services or environmental discipline, who possessed relevant post-qualification working experience and knowledge could register with the Electrical and Mechanical Services Department as competent persons under the proposed scheme. In response to Ir Dr HO's further enquiry on the application of the scheme to buildings connected to district cooling systems, <u>AD/EE</u> said that the air-conditioning installations supplied by the district cooling system would have to comply with BECs.

#### **Exemptions**

- 17. Regarding the exemptions for buildings with total ratings of their main electrical switch not exceeding 100A,1-phase or 3-phase, <u>AD/EE</u> explained that the exemption would be granted taking into account the usage of building, e.g. that the electricity consumption would be very small as in the case of an industrial godown mainly used for storage with no air-conditioning.
- 18. Noting that some buildings might need to retrofit their electrical installations to accommodate the provision of charging facilities for electric cars when these were introduced in Hong Kong, Mr CHAN Hak-kan asked if these buildings could be exempted from BECs on electrical installations. AD/EE advised that buildings which complied with BECs on electrical installation should have no problem in accommodating the provision of charging facilities for electric cars.

#### Penalties

- 19. On non-compliance with the proposed mandatory scheme, <u>PAS(EG)</u> said that enforcement actions would be taken against the owners or tenants, as appropriate, depending on who was responsible for the retrofitting works. If the retrofitting works were carried out in the common areas of the residential buildings, Incorporated Owners would most likely be held liable for any non-compliance.
- 20. Concluding the discussion, the <u>Chairman</u> said that while members were in support of the proposed mandatory scheme on BECs in principle, they considered that assistance should be provided to facilitate compliance with the scheme by owners of buildings, particularly those old and smaller developments. <u>Mr KAM Nai-wai</u> requested to put on record his reservations on the proposed arrangements for older buildings.

## IV. Second phase of the Mandatory Energy Efficiency Labeling Scheme

(LC Paper No. CB(1) 2197/08-09(05) — Administration's paper on second phase of the mandatory Energy Efficiency Labeling Scheme LC Paper No. CB(1) 2197/08-09(06) — Paper mandatory on Energy Efficiency Labeling Scheme the Legislative prepared by Council Secretariat (background brief))

21. <u>PAS(EG)</u> gave a power-point presentation on the proposed second phase of the Mandatory Energy Efficiency Labeling Scheme (MEELS) which included washing machines and dehumidifiers.

(*Post-meeting note*: The power-point presentation materials were circulated to members under LC Paper No. CB(1) 2298/08-09(02) on 15 July 2009.)

- MEELS, whether consumers would tend to choose products with energy labels and if not, whether more efforts would be made to promote products with energy labels. Ms Miriam LAU also enquired about the current compliance rate under the initial phase of MEELS. AD/EE said that the submission rate of the existing air-conditioner models was estimated to be 100%. Meanwhile, the product model submission rate for refrigerators and compact fluorescent lamps had reached about 64% and 59% respectively. It was expected that by the end of the grace period on 8 November 2009, the three prescribed products in the initial phase of MEELS should be able to reach 100% compliance rate. While the feedback on MEELS was generally positive, a more comprehensive survey would need to be conducted after the formal commencement of MEELS on 8 November 2009.
- 23. Mr CHAN questioned why only two more products were to be included in the second phase of MEELS. PAS(EG) said that when extending MEELS to include more prescribed products, due consideration would have to be given to the potential energy savings. Taking the case of televisions as an example, current assessment on energy efficiency of televisions was based on the standby mode rather than the operating mode. The potential energy saving under such assessment would be low and therefore it would not be cost-effective for the trades to comply with energy labeling requirements under such circumstances. Another factor was the availability of internationally accepted testing standards for energy efficiency. products like electric rice cookers which did not have internationally accepted standards had not been proposed for inclusion under MEELS. The Under Secretary for the Environment (USEN) said that the five prescribed products included in the initial and second phase of MEELS would account for about 67% of the annual electricity consumption in the residential sector in Hong Kong. A review of the effectiveness of MEELS in promoting energy efficiency would be made some time in 2010/2011.
- 24. Noting that the market penetration of washing machines and dehumidifiers under the voluntary energy efficiency labeling scheme were only 29% and 26% respectively, Ms Miriam LAU asked if a grace period of 18 months would be given to the second phase in line with the practice of the initial phase. She was aware that the trades had previously expressed concerns during the development stage of the initial phase of MEELS that the mandatory energy labeling requirements might restrict the availability of different models in the local market. AD/EE confirmed that a grace period of 18 months would also be given to the two products under the second phase of MEELS in line with practice of the initial phase. The duration of the grace period was worked out in consultation with the task force which comprised the Consumer Council and associations of suppliers, importers, manufacturers and retailers.
- 25. Mr CHAN Hak-kan indicated support for the implementation of the second phase of MEELS as this would facilitate consumers to purchase more energy-efficient appliances. Referring to the samples of energy labels in the Annex to the Administration's paper, he sought explanation on different types of information required for washing machine and humidifier. AD/EE said that while the label provided information on the capacity and performance of a product, consumers could

always make reference to the grading of the product and a Grade 1 product was the most energy-efficient. He also explained that the "energy factor" was unique to the energy label of dehumidifier as this reflected the amount of water collected during the dehumidifying process, which was not applicable to washing machine. Noting that the annual energy consumption was based on 450 hours per year operation at 26.7°C and 60% relative humidity, Mr CHAN was concerned that this was quite different from the actual situation in Hong Kong where the temperature and relative humidity were much higher. AD/EE explained that the relative humidity was set at 60% because the dehumidifier was able to reduce and maintain the indoor relative humidity at 60% after a while of operation. The testing condition of 26.7°C/27°C and 60% relative humidity had been adopted widely as international testing standards.

- 26. As commercial and office buildings usually consumed more electricity because of the use of central air-conditioning, <u>Professor Patrick LAU</u> enquired about the means to promote energy conservation in these buildings. He also asked if consideration would be given to informing tenants of the grading of air-conditioners being used. <u>AD/EE</u> said that the specifications for air-conditioning would be set out in BECs. Building professionals would need to select the right models of air-conditioners in order to comply with the requirements. The energy labels would facilitate general consumers in their choice of purchase. Electrical appliances with low energy efficiency performance were expected to be faded out in time through market forces.
- 27. Given the rapid technological development, the <u>Chairman</u> said that many electrical appliances would become outdated in a very short period of time. Hence, there was a need to expedite the progress of MEELS to keep up with the latest development. <u>PAS(EG)</u> said that the trades would need time to adjust to the energy labeling requirements and benchmarking of the products. Besides, there was a need to monitor the latest development in the testing standards for energy efficiency of products.

#### V. Any other business

Study on excessive glare from advertisement signboards

(LC Paper No. CB(1) 2197/08-09(07) — Administration's paper on Study on Energy Wastage of External Lighting

LC Paper No. CB(1) 960/08-09

 Information note on "Light pollution and the regulation of outdoor lighting in selected places" prepared by the Research and Library Services Division)

- 28. <u>USEN</u> briefed members on the study on energy wastage of external lighting being conducted by the Administration.
- 29. Noting that the study would make reference to the experience of other cities which were similar to Hong Kong in handling external lighting, Ms Miriam LAU enquired about the cities to which reference would be made. PAS(EG) said that the

study would draw reference to cities comparable to Hong Kong in terms of demography, economic development and population density. The cities to be selected for the study would likely include Singapore, Tokyo, London and New York. Ms LAU questioned the need for the Administration to engage consultants to conduct the study, given that the information note on "Light pollution and the regulation of outdoor lighting in selected places" prepared by the Research and Library Services Division (LC Paper No. CB(1)960/08-09) had also made reference to overseas experience in the control of external lighting. Sharing similar concern, the Chairman enquired about the cost and duration of the consultancy study, and whether public consultation would be held. USEN said that the study which cost about \$3.2 million was expected to be completed by the end of 2009. The study would examine the use of external lighting in various representative areas, including residential, commercial, residential-cum-commercial, new town and rural areas etc., in Hong Kong. <u>PAS(EG)</u> added that the consultants would carry out a survey on views of relevant stakeholders, such as residents, green groups, professionals, building owners, property management companies, as well as relevant trades, including advertising, retail, electrical and mechanical engineering, tourism etc. The Chairman emphasized the need for a proper public consultation exercise to invite views from affected parties.

- 30. <u>Ms Miriam LAU</u> held the view that the study should not be a desk-top study similar to the one conducted by the Research and Library Services Division. She agreed that the scope of the consultancy study should include public consultation with affected residents. The <u>Chairman</u> echoed that the consultants should be required to conduct field studies and to measure the intensity of external lighting in areas, such as Causeway Bay, Mongkok and Tsimshatsui, with a view to assessing the severity of the external lighting problem and the need for legislative control.
- 31. <u>Professor Patrick LAU</u> enquired whether the mandatory implementation of BECs would help to avoid energy wastage from external lighting. He also enquired if the legislation on the mandatory implementation of BECs would cover external lighting. <u>PAS(EG)</u> said that BECs did not provide control on external lighting. The study on energy wastage of external lighting would cover the duration and intensity of external lighting.
- 32. There being no other business, the meeting ended at 4:34 pm.

Council Business Division 1
<u>Legislative Council Secretariat</u>
13 October 2009