

Hon Audrey EU Tuet-mee
Chairman, LegCo Panel on Environmental Affairs

24th January 2008

Dear Ms. Eu,

**Panel on Environmental Affairs meeting on 28th January 2008
Proposed Mandatory Implementation of Building Energy Codes**

Thank you for inviting our views on the above to be presented at the panel meeting on 28th January 2008.

The Business Environment Council supports in principle the mandatory implementation of Building Energy Codes complemented by recognition for higher levels of energy performance. Our key observations on the consultation paper are summarized in the paragraphs that follow.

Overall context

We recommend that the proposal be framed explicitly in the context of the September 2007 APEC Declaration and its targets and timeframes, i.e. by how much will mandatory implementation of the codes reduce Hong Kong's energy intensity by 2030. This alignment is vital to quantify (i) the contribution of mandatory codes in achieving the Declaration targets and (ii) the scale of the remaining reductions in energy intensity, greenhouse gas and air pollution that are required through other efforts.

Rigour and Scope of the Codes

Whilst mandatory standards provide a base performance level that industry as a whole can attain, they must be sufficiently rigorous to ensure that Hong Kong (i) remains worthy of regard as a leading international city and (ii) achieves the required levels of reduction in energy wastage. The standards set by the codes – and importantly the expectations upon which they are based ¹ – will therefore require progressive review and revision.

Whilst the current energy codes address the installed efficiency of systems (lighting, air conditioning, electrical, lifts & escalators) *they do not control how efficiently those systems are actually used* (especially space temperature distribution and hours of operation). To achieve their intent the codes should in the future embrace more effective system control parameters (e.g. intelligent, automated controls for lighting, cooling and ventilation, etc).

¹ In particular for example the perceived "general local preference for better illuminated interior spaces", para 12 of the consultation paper, which leads to significantly greater than necessary electricity consumption.

Implementation of the Codes

We agree that, in developing the details of the proposal, further deliberation is required on a wide range of practical considerations just some of which we highlight as follows:

Developers and owners (of a new building) and owners / landlords / managers (of an existing building) exert varying degrees of influence over their tenants or occupiers, particularly in the specification of lighting provisions and especially in the sale or leasing of a retail space or office floor. Responsibilities and liabilities in these areas will need to be understood and accepted by all parties, with the necessary processes in place to facilitate their compliance.

Specific to *new buildings* as identified in the consultation paper, mandatory adoption will provide a much needed "level playing field". However, further deliberation is required of various implementation details such as the period allowed for self-declaration (fit-out, testing and commissioning often extends beyond two-months after issue of the occupation permit).

If renewal certificates for *new buildings* are to be based upon "supporting information including the results of energy audits" the format and performance benchmarks for those energy audits will need to be defined. Otherwise continued compliance should be based only on an assessment against the conditions stipulated within the codes themselves, with energy audits forming part of the voluntary recognition scheme (mentioned later). Furthermore we consider that ten years is too long a timeframe for renewal.

Specific to the retro-fitting of more than 50% of the gross floor area of an *existing building*, it should be recognized that whilst it might be financially and environmentally justifiable to upgrade one component (e.g. an aging chiller plant), parallel upgrades to the others (e.g. lifts, lighting, etc) could depending upon their age and condition be environmentally and financially *unjustifiable*. In such cases a "blanket" mandate for compliance with all four codes will discourage incremental improvements on a system-by-system basis.

The format and performance benchmarks of the energy audits of *existing buildings* will be of little or no meaning to occupants or potential occupants unless the audits are standardized into a comparative energy rating and level of performance (as part of the voluntary recognition scheme, mentioned later). Furthermore we consider that ten years is too long a between audits and that continuous energy management should instead be encouraged.

Whilst the recognized professionals who conduct the energy audits are to be Registered Professionals Engineers of the electrical, mechanical or building services disciplines it should be noted that these disciplines encompass broad aspects of engineering and do not necessarily imply individual experience or expertise in building energy systems.

Exclusions relating to genuine compliance difficulties in both new and existing buildings will need to be managed consistently and transparently to ensure that the "level playing field" introduced by mandating of the codes is not compromised such that the level of adoption is eroded. This is particularly the case for the many thousands of retail outlets that exhibit intensive electricity usage coupled with comparatively high frequency of renovation.

Voluntary Recognition of Enhanced Levels of Achievement

We support the concept of providing separate recognition where performance exceeds the prescribed mandatory levels. However we recommend that rather than introducing a completely new administrative framework, existing initiatives such as the BEAM² green

² BEAM, the *Building Environmental Assessment Method*, is Hong Kong's voluntary framework to measure, improve and label the environmental sustainability of buildings in their planning, design, construction, operation and management. BEAM sets best practice criteria for over 100 issues categorized into site, energy, indoor environment, water, waste and materials aspects. To date over

building label be engaged as the means for providing such recognition in Hong Kong. Launched in 1996, BEAM has embraced the four voluntary building energy codes since their introduction in 1998 and also adopts the same calculation methodology (albeit with different performance targets) for calculating the building energy budget as the performance-based building energy code.

Furthermore the Business Environment Council is at present seeking to develop a local version of the Australian Building Greenhouse Rating Scheme referred to in Annex A of the consultation paper as a means to complement the benchmarking and improvement of energy efficiency in BEAM for Existing Buildings. We have obtained consent from the New South Wales to use the ABGR as the basis to create a localized Hong Kong system for adoption on a voluntary basis when launched later in 2008. Further details on BEAM and the Hong Kong BGR can be provided upon request.

Conclusion

The Business Environment Council supports in principle the mandatory implementation of Building Energy Codes complemented by recognition for higher levels of energy performance with due consideration of the key points made above.

We will continue to consult with our members and partners and will be happy to participate in further discussions to enable a more comprehensive response to the consultation paper before the 31st March 2008 deadline.

Yours sincerely,
Business Environment Council



Kevin Edmunds
Chief Operating Officer

130 premises covering some 70 million square feet have been submitted for independent BEAM green building certification, making BEAM on a per capita basis one of the most widely used initiatives of its kind in the world.

BEAM is owned and governed by the not-for-profit HK-BEAM Society (www.hk-beam.org.hk) comprising almost 250 individual and corporate members from across the property industry. Members of the BEAM Executive Committee include representatives of the Business Environment Council, Building Services Operation and Maintenance Executives Society, Construction Industry Council, Construction Industry Institute (Hong Kong), Hong Kong Association of Property Management Companies, Hong Kong Construction Association, Hong Kong Federation of Electrical and Mechanical Contractors, International Facility Management Association (Hong Kong), Professional Green Building Council, and Real Estate Developers Association of Hong Kong. BEAM is endorsed as Hong Kong's green building label by the Construction Industry Council and is in the process of creating a platform for trained BEAM professionals from across the industry.