

2 December 2011

Council for Sustainable Development
c/o Sustainable Development Division
Environment Bureau
M/Floor, Murray Building
Garden Road, Central, Hong Kong

Attention: Mr Bernard Chan, Chairman

Dear Bernard

**Combating Climate Change:
Energy Saving and Carbon Emission Reduction in Buildings**

The Hong Kong General Chamber of Commerce welcomes the public engagement exercise of the Council for Sustainable Development on “Combating Climate Change: Energy Saving and Carbon Emission Reduction in Buildings”.

The impact of climate change is gradually being felt in Hong Kong, as we have seen in changing weather patterns and temperatures recorded by the Hong Kong Observatory. Owing to the increasing cost of doing businesses and daily necessities brought about by the stringent regulations on direct and indirect carbon emissions in the world markets, there are significant benefits for businesses and individuals alike to move towards a low carbon economy.

We support in principle the initial list of proposed actions, providing that cost implication, practicality and acceptability are attained. I enclose a paper outlining our views on the Invitation for Response document, and we hope our recommendations will contribute to the development of appropriate green policies.

Thank you.

Sincerely,

Shirley Yuen
CEO

Combating Climate Change: Energy Saving and Carbon Emission Reduction in Buildings

HKGCC Submission in response to the Public Engagement Exercise
of the Council for Sustainable Development

The Hong Kong General Chamber of Commerce (HKGCC) welcomes the public engagement exercise of the Council for Sustainable Development (SDC) on “Combating Climate Change: Energy Saving and Carbon Emission Reduction in Buildings”. We support in principle the initial list of proposed actions, providing that cost implication, practicality and acceptability are attained.

1. Introduction

- 1.1 The HKGCC submitted a policy report on “Climate Change Strategy and Action Agenda” in December 2010, in which we welcomed the HKSAR Government’s initiatives for combating climate change. We accepted the proposed carbon intensity reduction target of 50%-60% by 2020 as a solid basis for putting in place appropriate reduction strategies. A copy of the report is attached.
- 1.2 The impact of climate change is gradually being felt in Hong Kong, as we have seen in changing weather patterns and temperatures recorded by the Hong Kong Observatory. Owing to the increasing cost of doing businesses and daily necessities brought about by the stringent regulations on direct and indirect carbon emissions in the world markets, there are significant benefits for businesses and individuals alike to move towards a low carbon economy.
- 1.3 Among the various recommendations, we believe that the Government has a facilitating role in promoting demand side management (DSM), including energy efficiency in businesses and responsible energy consumption in the community. DSM involves changes in purchasing decisions and operational measures of businesses, and entails changing behaviour and lifestyle choices of the general public.
- 1.4 While DSM is a useful means to encourage energy savings, the constraints in Hong Kong include (1) lack of choices in the market, (2) inadequate information for making choices, and (3) cost disadvantage inherent in greener options compared to more readily available conventional options. Cost implication, practicality and acceptability are therefore the key elements of a successful transition towards a low carbon economy.
- 1.5 The HKGCC would like to present our views on SDC’s proposed actions, broadly under two categories – “System Enhancement” and “Facilitation of Behaviour Change” in the “Invitation for Response” (IR) document, as follows:

2. Systemic Enhancement

2.1 To consider tightening the Building Energy Code (BEC)

- 2.11 The HKGCC supports mandatory implementation of the Building Energy Code (BEC), which should be guided by two principles:

- The HKSAR, being a member of the C40 Cities Climate Leadership

- Group, should demonstrate its leadership by adopting global best practices.
- Practicality should be emphasized in introducing the scheme, so as to achieve concrete results quickly
- 2.12 The current BEC covers four building services installations, i.e. lighting, electrical, air conditioning, lift and escalator installations in commercial buildings and communal areas of residential and industrial buildings. However, it does not cover buildings of the public sector, such as schools, hospitals or police stations. The Government should lead by example, in line with the principles of best practices and fairness.
- 2.13 Tightening current performance standards of these building services installations would help identify new opportunities to improve energy performance of buildings, but on the other hand it implies greater compliance costs for property developers, building designers and owners. Various Government departments, i.e. Environmental Protection Department, Electrical and Mechanical Services Department (EMSD) and others, should coordinate and work together to converge a list of useful options and obstacles, to enable buildings to be more energy efficient, and reduce the barriers of possible increasing costs by administrative means and incentive schemes, e.g. changing the use of space to house additional equipment and enhancing tax reductions for best practice in energy efficiency investments.
- 2.14 While energy audits for existing buildings have become mandatory, improvement works to comply with BEC requirements is voluntary. More stringent requirements should be introduced to reduce the shortfall.
- 2.15 Further, the BEC covers mainly building service installations, rather than an energy performance standard for new buildings. The Government should take a coordinated approach to develop an overall energy efficiency requirement of new buildings, including both Building Passive Design (i.e. facade heat gain, natural ventilation and daylighting) and active system under the BEC (i.e. air conditioning, lighting, lift and escalator and electrical installations) when expanding the scope of BEC.

2.2 To consider providing recognition for buildings achieving high energy efficiency

- 2.21 The HKGCC, in its previous policy submission on BEC, proposed to introduce a tiered arrangement, i.e. with the BEC issued by the EMSD as the minimum standards applicable to all buildings covered by it, and a higher set of standards to be introduced to give recognition to buildings that achieve better energy efficiency to encourage superior environmental performance.
- 2.22 The government should use the mandatory energy audit to collect energy data of buildings to help establish and maintain a benchmark. With such benchmark, developers could set up targets for their new buildings, building operators/occupiers could identify the potential for improvements, and the government could make reference to the database to develop facilitation policies, providing incentives/penalties based on the buildings energy intensity/efficiency.

- 2.23 The BEAM Plus scheme operated under the Hong Kong Building Council should be used as a labelling scheme for Hong Kong. The results from the benchmarking exercise could be used to award credits from the BEAM Plus assessment. While giving recognition is a good approach, financial incentives such as GFA concession and government rates reduction could be considered for energy efficient buildings achieving higher grade in the BEAM Plus (e.g. Silver, Gold or Platinum rating), so as to encourage developers and owners to adopt greener options.
- 2.24 A review mechanism should be incorporated into BEAM Plus to continuously upgrade the standard for Hong Kong. While motivating building owners to maintain their certification status by re-checking energy performance within a reasonable time interval, it will also help facilitate the demand and skill development of required professionals, so as to promote green jobs.
- 2.25 Whether BEAM Plus, or other government's recognition schemes such as the Hong Kong Awards for Environmental Excellence that encourages energy-efficient building performance, high benchmarks should be established for these schemes, whilst a distinctive category with a separate set of assessment criteria and incentives could be considered for small-scale or old buildings.

2.3 To explore extension of the application of the Mandatory Energy Efficiency Labelling Scheme (MEELS)

- 2.31 The HKGCC has advocated market mechanism as the primary means for promoting energy efficient appliances, which could be converted into a mandatory measure for electrical appliances after a designated and appropriate "grace period" for voluntary compliance. Room air conditioners and refrigerators are two typical examples.
- 2.32 The current lists of appliances under both the mandatory and voluntary schemes should be revisited with a view to cover more commonly used electrical appliances, starting with those of high energy consumption. The cost-benefit approach should be highlighted in territory-wide publicity and education programmes to motivate consumers to choose energy-efficient electrical appliances, even though the upfront prices are likely to be higher due to the higher cost for research, development and production.

2.4 To consider tightening up the energy efficiency grading levels for room air conditioners and refrigerators under the MEELS

- 2.41 We welcome suggestions to incentivize the supply of higher energy-efficient products and to encourage research & development of energy-efficient electrical appliances, such as room air conditioners and refrigerators. Regulatory review on tightening up the energy efficiency grading levels and scientific data should be widely publicised to raise the awareness among consumers that, over time, energy savings of higher energy-efficient products pay for the upfront costs.

2.5 To explore phasing out energy-inefficient incandescent light bulbs

- 2.51 The HKGCC supports a wider use of energy-efficient lighting devices to enhance energy efficiency and reduce greenhouse gas emissions.
- 2.52 Given the compatibility concern of the existing lighting fixtures, as well as the initial cost of switching to energy-efficient lighting products, we would recommend the HKSAR Government to mandate the restrictions on the imports and sales of energy-inefficient incandescent light bulbs (ILB) over an appropriate and targeted phase-out period of time. The phase-out period should allow sufficient time to eliminate ILB by market force, so as to encourage the SMEs cease replenishing stocks and supply of ILB within a specified timeframe.
- 2.53 To encourage the use of more energy-efficient lighting devices and to facilitate technological development during the transition period, new buildings should be required to comply with the new requirements for lighting devices, while older buildings should be given flexibility to replace energy-efficient lighting alternatives in phases.
- 2.54 Concerning the disposal issue of compact fluorescent lamps with mercury content, a fluorescent lamp disposal scheme should be put in place to encourage consumers to return obsolete lamps for proper treatment.

2.6 To explore phasing out energy-inefficient electrical installations/appliances

- 2.61 Again, we agree to mandate the restrictions on energy-inefficient electrical installations/appliances by imposing minimum energy performance standards, with an appropriate and targeted phase-out period on a product-by-product basis. The energy performance and life cycle of electrical installations/appliances should be reflected in the pricing structure to facilitate purchasing decisions of consumers for energy-efficient products.

3 Facilitation of Behavioural Change

3.1 Energy/Carbon Audit

- 3.11 The HKGCC supports the Government to pursue low-carbon development, through demonstration projects and relevant carbon audit schemes, starting with the public sector. The Government should take the lead in practising low carbon management by requiring all departments and facilities to conduct regular carbon audit and reporting, and where appropriate setting reduction targets.
- 3.12 The SDC is applauded for developing the “Carbon Manager”, a user-friendly online carbon emission calculation system that helps the building users to better understand their energy consumption patterns and carbon emission levels, and implement practical and effective energy reduction measures.
- 3.13 At present there are a number of free carbon calculation tools but they are not widely used because of resource and time implications to businesses,

particularly small and medium enterprises, arising from an extensive assessment on their operations. If measurable costs and benefits of carbon audits are set out clearly with showcases, more businesses and households will be willing to follow suit.

- 3.14 As energy consumption contributes the most carbon emissions in Hong Kong, the Government should focus on promoting energy audit (covering all major fuels) among general businesses, which is much simpler than a carbon audit. Businesses and households should be encouraged to use energy assessment tools provided by power companies and other organisations to assess and improve their energy usage.
- 3.15 In regarding to buildings, carbon audit can still be carried out on a voluntary basis to cover assessment on emissions from water and waste in addition to energy. It could be a credit item in BEAM plus, and/or become an incentive scheme provided through the BEAM Plus system. Further, while the government is already providing financial support to energy cum carbon audits and enhancement projects for buildings, such support should not be restricted to multi-owned buildings only but to all buildings.
- 3.16 A campaign should be launched to encourage all listed companies to undertake environmental or sustainability reporting, especially on the environmental measures they and their subsidiary companies are taking, i.e. air quality and carbon footprint management. The reports can become a driver of corporate social responsibility by enhancing communication and trust between the respective organizations and their stakeholders. If these companies can be measured and rated on this front voluntarily, with more companies adopting such reporting, it could eventually become part of the reporting requirement of the Hong Kong Exchange for listed companies. Already, some international funds are giving credits to investee companies that are socially responsible.

3.2 Better understanding of your energy consumption

- 3.21 To facilitate behaviour change within building users, benchmarking tools, such as historical electricity consumption indicators currently available on some electricity bills, should be made available on all electricity bills as an accessible reference to the public for self-evaluation.

3.3 More use of energy efficiency management systems (EMS)

- 3.31 The Government has a facilitating role in enhancing businesses' contribution to energy efficiency, for example, through more support in the promotion and development of energy-related industries and services. Facilitation programmes should be organised with the environmental sector to enhance the visibility of energy efficiency management systems (EMS) in the market, with incentive schemes to encourage the use of EMS and information technology products.
- 3.32 The EMSD should evaluate the energy efficiency performance among different common building designs and equipment. These could include all

air system vs. air/water system; air cooled vs. water cooled, and various HVAC systems for data centers, etc, so that energy inefficient designs/equipment should be phased out, and/or incentives will be given to the use of efficient designs/equipment.

3.4 Promote adoption of energy-efficient electrical appliances among the trades

- 3.41 The Government should step up publicity and dissemination of latest information on energy-efficient electrical appliances to enhance awareness and make available more choices for local trade use.
- 3.42 In view of the wide variety of labelling schemes adopted by different producer countries, there is a need of “re-labelling” electrical appliances corresponding to the grading levels used in Hong Kong. To promote waste reduction and encourage the development of a circular economy, producers who take back obsolete products with a properly certified and audit process that recycles or disposes of these products, should be given higher grading as recognition.
- 3.43 The Government should encourage investments on research and development for energy-efficient electrical appliances through various funding schemes. The financial sector can play a key role in supporting the use of energy-efficient electrical appliances by local trades in order to facilitate demand for these products.

3.5 Electricity tariff structure review

- 3.51 For more practical DSM programmes, we propose that a two-prong strategy targeted towards both power plants and consumers be adopted. For power plants, initiatives such as energy efficiency, peak clipping and load shifting programmes have been promoted for some time and produced tangible results. To take these programmes further, more ambitious targets may be considered to encourage delivery of greater energy saving. Further incentive schemes should be devised to encourage power companies to enhance existing programmes to support energy efficiency among end-users.
- 3.52 Electricity tariffs can conceivably be designed to achieve multiple objectives, to not only cover the cost of service delivery and to meet the social needs of those who are less fortunate, but also to influence energy users towards making better energy-efficiency choices. As any revision of the tariff structure would likely benefit some users whilst impose higher burden on others, the success of encompassing energy efficiency as one of the objectives depends in large measure on engagement with the business sector and the wider community. We encourage more discussions among the Government, the power companies and the community to agree on the objectives to be achieved from tariff revision, then to develop potential options together for improving the tariff structure.
- 3.53 If a progressive tariff structure is to be adopted, it would have to be based on energy efficiency, i.e. energy consumption per area, service unit and customer, etc, rather than simply on the total amount of energy consumption. Large buildings and premises consume more energy than small ones, but they may

use energy more efficiently. Another example is that larger public service organisations such as universities, hospitals and transport providers, etc should not be penalized for providing more services resulting in higher energy consumption.

- 3.54 The effectiveness of energy reduction measures relies on participation by the community. A territory-wide promotion of responsible electricity consumption, similar to the “Clean Hong Kong” campaign, should be initiated to encourage energy conservation, e.g. “better-off” while not in use, a code of practice to control air conditioning temperature in offices and shopping centres, recognition labels for best practices, etc.