

Motion on “Advocating a low carbon life” at the Legislative Council Meeting on 10 March 2010

Progress Report

Purpose

At the Legislative Council meeting on 10 March 2010, the motion on “Advocating a low carbon life” moved by the Hon CHAN Hak-kan as amended by Hon Audrey EU Yuet-mee, Hon KAM Nai-wai and Dr Hon Priscilla LEUNG Mei-fun, was carried. Wording of the motion is at **Annex**. This note updates Members on the follow-up actions taken by the Administration in respect of the suggestions put forward by Members in the motion.

Policies to Promote a Low Carbon Economy and Lifestyle

2. The Government attaches much importance in combating climate change and is committed to making early preparations to meet the global challenge of climate change. In his 2008/09 Policy Address, the Chief Executive set out the policy objective of promoting a low carbon economy based on low energy consumption and low pollution. To meet the challenge, measures and actions are being undertaken to control greenhouse gas (GHG) emissions as much as possible, and the Administration has been advocating a low carbon lifestyle.

3. Considering the GHG emissions situation in Hong Kong, the Government has put emphasis on raising energy efficiency and reducing energy consumption in our efforts of promoting a low carbon lifestyle. At the same time, the Government is taking forward a series of green initiatives to reduce emissions from other sources including transportation and the waste sector etc..

Low Carbon Lifestyle Initiatives

Enhancing Energy Efficiency, Saving Energy, and Reducing Carbon Footprint

4. In terms of end-uses, buildings consume 89% of the total electricity in Hong Kong. Enhancing the energy efficiency of buildings can therefore effectively reduce local power consumption, thereby

alleviating the adverse effects of climate change. On 9 December 2009, the Administration submitted to the Legislative Council the Buildings Energy Efficiency Bill, with a view to setting minimum energy efficiency standards for local buildings through mandatory implementation of Building Energy Codes. To encourage and support building owners to take action, the Government launched the "Buildings Energy Efficiency Funding Scheme" in April last year. Environment and Conservation Fund allocated \$450 million to subsidize eligible applicants under the Scheme to conduct energy-cum-carbon audits and energy efficiency improvement projects in communal areas of their buildings, at which energy saving lighting, installations and products are being supported. Up to 3 May 2010, some 400 funding applications, amounting to more than \$85 million have been approved. The total saving in electricity consumption of the approved applications is estimated at 55 million kWh per annum, which is expected to lead to a reduction of 38,500 tonnes of carbon emission.

5. To facilitate consumers in choosing energy-efficient products and to raise public awareness on energy conservation, the Administration has introduced the Mandatory Energy Efficiency Labelling Scheme through the Energy Efficiency (Labelling of Products) Ordinance (Cap. 598). The scheme is being implemented in phases, and will help facilitate members of the community in saving energy. The initial phase, which covers room air conditioner, refrigerating appliance and compact fluorescent lamp, has come in full operation since 9 November 2009. The second phase of the scheme covers two more electrical appliances, namely washing machines and dehumidifiers, and commenced on 19 March 2010 with an 18-month grace period for the trades to make necessary preparations.

6. With a view to encouraging different sectors of the community to conduct carbon audit and thereby reduce their emissions level, the Government launched in 2008 a set of carbon audit guidelines for buildings in Hong Kong, and embarked upon the "Green Hong Kong • Carbon Audit" Campaign at the same time. The guidelines provide a systematic and scientific approach to account for and report on the greenhouse gas emissions and removals from buildings. The guidelines also facilitate the identification of areas for improvement and opportunities to reduce emissions arising from the building operations. The Government has been joining efforts with different sectors of the community to promote carbon auditing and conduct of carbon reduction programmes. There are now more than 170 organizations that have signed up as "Carbon Audit • Green Partners".

7. In addition, various enterprises and organizations have already launched different carbon footprint evaluation tools for the public's use, which enable the latter to better understand their own carbon emissions level and to practise carbon reduction in daily life. For instance, the two local power companies have provided a "conversion tool" at their website to facilitate the conversion of electricity consumption into equivalent carbon emissions. The Government encourages the public to use these resources to practise a green and low-carbon lifestyle.

Water Conservation

8. Reducing water usage will also reduce carbon emissions and form part of the low carbon lifestyle. The Government is promoting a Total Water Management strategy for more effective management and use of the precious water resources. The strategy puts emphasis on containing growth of water demand through conservation. One of the water conservation measures is to promote water saving devices and appliances.

9. Water Supplies Department (WSD) rolled out a voluntary "Water Efficiency Labelling Scheme" (WELS) last year to promote public awareness on reducing water consumption and raising efficiency of plumbing fixtures and water-consuming appliances. WELS is being implemented by phases - the first phase was launched in September 2009 on showers for bathing and as at end April 2010, a total of 32 shower products have obtained the labels. WSD is planning to include water taps and washing machines in the next phase of the scheme expected to be launched within 2010-11. The department will also review the progress of the Scheme and introduce amendments as necessary.

Waste Management and Waste-to-Energy

10. Hong Kong is a small city with a large population, and solid waste management has been an issue of concern. Waste reduction and recovery has always played an important role in our waste management strategy, and the Government has been advocating for the community to recycle more, discard less, and lead a green lifestyle. To encourage waste reduction, recovery and recycling, the Government has since January 2005 been taking forward a territory-wide programme in respect of source separation of domestic waste. The programme was further extended to cover commercial and industrial buildings in October 2007. Members of community are encouraged to practise waste separation both at home and at work. Under the programme, waste separation and recovery facilities have been put up at buildings. The types of recyclables have also been increased during the period which helps adoption of a low carbon lifestyle.

As at end April 2010, about 1,480 housing estates and residential buildings have signed up to join the programme, which covers about 74% of the population. At the same time, some 600 commercial and industrial buildings have joined the Programme.

11. To add further impetus, the Government is setting up two waste recycling centres in EcoPark with a view to providing a secured outlet for waste plastics and waste electrical and electronic equipment (WEEE) which has relatively limited market demand and their processing in Hong Kong is currently not economically sustainable. The plastic recycling centre at EcoPark started to operate in March 2010, while the WEEE recycling centre is expected to commence operation in the second half of 2010.

12. Action is also being taken to reduce the amount of food waste requiring disposal at landfills. The Government commissioned a pilot composting plant in mid-2008 to gather experience and information on the collection and treatment of organic waste. The pilot plant has provided useful local information and experience in developing the first phase of the Organic Waste Treatment Facilities (OWTF) which is being planned at Siu Ho Wan in Lantau. The future OWTF would adopt biological treatment technology (i.e. composting and anaerobic digestion) for recycling food waste into compost product and biogas as renewable energy. The first phase of OWTF will handle about 200 tonnes of source-separated food waste daily from the commercial and industrial sector. The Environmental Impact Assessment (EIA) study for this development was completed in February 2010 and the facility is anticipated to be commissioned in 2013/14.

13. In addition to the development of OWTF, other waste-to-energy technologies are being adopted or explored, which are key to development of a low carbon economy in Hong Kong. For instance, to reduce GHG generated from solid waste disposal, the Government and the Hong Kong and China Gas Company implemented the landfill gas utilization project at the Northeast New Territories Landfill in 2007. Since then, the methane content of landfill gas has been utilized as an alternative fuel source for town gas production. In order to further utilize landfill gas, the Government is working with the Southeast New Territories (SENT) Landfill contractor and Hong Kong and China Gas Company to pursue another large-scale landfill gas utilization project, e.g. to turn majority of captured landfill gas into town gas for use by local residents. Under the project, the methane gas generated from SENT landfill will be fully utilised, including 85% for conversion into town gas, and the remaining 15% for electricity generation and heat conversion for

daily landfill operation.

14. Other than landfill gas utilization, there is also potential for turning waste into energy through the development of Integrated Waste Management Facilities (IWMF), which is under active planning. The future IWMF would adopt advanced incineration with energy recovery as the core waste treatment technology. Two potential sites (i.e. Tsang Tsui ash lagoon at Tuen Mun and Shek Kwu Chau) have been identified for developing the first phase of the IWMF which could treat 3,000 tonnes of municipal solid waste each day and produce electricity sufficient for use by over 100,000 households. The detailed engineering and EIA studies for the IWMF are being conducted to ascertain the suitability of the two potential sites with a view to commissioning the facility by mid 2010's.

Green Transportation

15. The Government is committed to a series of green transportation measures to facilitate the public in adopting a low carbon lifestyle, for instance to increase the coverage of the public transport system (especially the rail network) to make our transportation system even more environment friendly. In addition, the Government will carry out other supporting measures such as promotion of green vehicles, and look into the feasibility of carrying out projects to improve pedestrian environment etc..

Pilot Green Transport Fund

16. In the 2010/11 Budget, the Government proposed to set up a \$300 million Pilot Green Transport Fund to encourage the transport sector to test out green and low-carbon transport technologies, and to introduce more innovative green technologies such as hybrid and electric vehicles (EVs) and their relating operating systems, and retrofit systems to enhance the emission performance of in-use vehicles and ferries. On 26 April 2010, the Administration consulted the Members of the Legislative Council Panel of Environmental Affairs on the matter. An implementation framework for the Fund will be mapped out in light of Member's views for further consultation with the stakeholders and the Legislative Council in the coming few months.

Wider Use of EVs

17. In respect of promoting wider use of EVs, the Government has continued to cooperate with EV manufacturers by conducting trials on EVs and inviting different manufacturers to introduce their EVs to Hong

Kong. It is expected that around 200 EVs will be supplied to the local market in 2010-11. Regarding the setting up of EVs charging facilities, the Government and the two power companies in Hong Kong will have set up around 60 charging points in the territory by mid 2010.

Wider Use of Biodiesel

18. In order to promote wider use of bio-diesel as fuel for motor vehicles, the Government has adopted a tax-free policy for this purpose. The Government has also recently established the statutory product requirements for biodiesel used by motor vehicles, which will be introduced under the Air Pollution Control (Motor Vehicle Fuel) (Amendment) Regulation 2009 in July this year. This should help boost the confidence of vehicle owners in using biodiesel. Furthermore, the Government is actively considering the use of biodiesel in its motor vehicle fleet, marine vessels and plants.

Banning Idling Vehicles and Setting up Low Emission Zones

19. Members had proposed to ban idling vehicles with running engines, as well as to set up “low emission zones” with a view to improving roadside air quality. On the former, the Administration submitted the "Motor Vehicle Idling (Fixed Penalty) Bill" to the Legislative Council for scrutiny on 28 April 2010. To reduce air pollution, heat and noise nuisances caused by idling motor vehicles with running engines, the Bill introduces a statutory requirement for drivers to switch off the engines while the vehicles are stationary.

20. As for the proposal of setting up “low emission zones”, the Government is carrying out a study to explore the feasibility of setting up pilot low emission zones in busy corridors (e.g. Causeway, Central and Mongkok) by restricting the entry of old franchised buses, so as to assess the effectiveness of the measure in improving roadside air quality.

Pedestrian Environment Improvement

21. To take forward proposals received and assessed in respect of the provision of hillside escalator and elevator systems to provide convenience to pedestrians in accessing up-hill areas, the Government will conduct feasibility studies on the proposals in phases. New proposals received as well as proposals received in previous exercises which have not been committed for implementation will also be assessed periodically. These projects will contribute to reducing pedestrian’s dependence on the transportation system, as a result of which the impact of roadside pollution

would be reduced. The Government is also planning to improve the walking environment in busy business districts and shopping and leisure areas with heavy pedestrian flow, including the development of footbridge and subway systems meeting the local area and public needs. They will have the benefit of encouraging people to walk between different destinations, thus reducing reliance on road transport and carbon emissions. These will include taking forward technical feasibility studies of providing a subway system linking the MTR station with Victoria Park as well as the busy streets in the heart of Causeway Bay and its junction with Happy Valley, and providing a footbridge system linking the existing footbridges and the two railway stations in Mongkok and the vicinity of Tai Kok Tsui.

Green Procurement

22. Green carbon lifestyle may start with green products. Some apparently minor behavioural changes in green procurement can lead to substantial carbon reduction and savings. As a major procurer of services and goods, the Government actively promotes green procurement policies to increase the demand for environmentally friendly products, while reducing carbon emissions. The Chief Executive in June last year announced that the Government would expand the green procurement list, stop buying incandescent light bulbs and provide guidelines to encourage government departments to purchase environmentally friendly products. At present, the Government has established green specifications for more than 60 types of products commonly used by government departments, and will apply the green specifications in the procurement of the products, subject to market availability and cost effectiveness considerations. The Government will further expand the green procurement list to cover over 100 types of products in this year. Apart from developing green specifications for the products commonly used by the Government, we also seek to encourage our contractors to accord priority in using recycled works materials in public works projects where the performance of the materials is satisfactory, there is sufficient market supply and that the market price is reasonable. Such materials include paving blocks made with recycled glass contents as well as recycled aggregates.

23. On the suggestion to set up labelling system(s) to facilitate market development of green products, indeed we understand there are already some local organizations which have been providing certification services for green products, activities and programmes in Hong Kong. They include the Hong Kong Quality Assurance Agency and the World Wide Fund for Nature Hong Kong. In addition, consultants offering greenhouse gas management services will also be able to advise on

procurement of green energy efficient products. The Environmental Protection Department in February 2010 established such a list of consultants (on a self-participating basis) on its website, and so far 82 consultants have participated to enroll for providing the services to the public.

Development of Local Organic Produces Market

24. To promote the development of local organic agriculture and fisheries, the Agriculture, Fisheries and Conservation Department (AFCD) has been actively supporting farmers engaged in organic farming, including technical support for addressing problems of pest control, horticulture and soil fertility etc. Currently, there are 143 farms under AFCD's organic farming support services, involving a total area of 60 hectares of cultivated land. Since 2002, the Vegetable Marketing Organisation (VMO) has been supporting the Hong Kong Organic Resource Centre (HKORC) in implementing the voluntary independent certification programme for organic products. There are currently 72 organic farms certified by the HKORC. The VMO will continue to assist the HKORC to promote its certification services and public education programmes, so as to promote local organic farming. Regarding fisheries, AFCD commissioned the HKORC to develop a code of practice for organic aquaculture practices and invited experts to assist the development of local organic aquaculture. Last year, AFCD also began to collaborate with local fish farmers to assess the feasibility and cost effectiveness of implementing organic aquaculture in Hong Kong.

Greening Efforts

25. Green landscape improves our living environment and enhances quality living in many ways. Government has been proactively promoting greening, through new planting, quality landscape design as well as proper maintenance of vegetation with a view to providing a better environment for business and living. In the past five years, Government has planted over 55 million plants, including trees, shrubs and annuals, in the territory.

Others

26. Members had suggested that the Government should adopt the World Health Organisation (WHO) Air Quality Guidelines for setting air quality benchmarks for Hong Kong. Although tackling air pollutant emissions and climate change are two separate initiatives, many measures which reduce air pollutant emissions, for example, emissions from power

plants, can reduce GHG emissions. The Government has completed in November last year public consultation on the proposed set of new Air Quality Objectives (AQOs), for protection of public health by benchmarking against the WHO Air Quality Guidelines and Interim Targets together with a host of 19 air quality improvement measures for achieving the proposed AQOs. We are now studying the views collected in the public consultation exercise.

27. Regarding the suggestion of including "protecting public health" as a statutory requirement, in fact, section 7(2) of the Air Pollution Control Ordinance (APCO) has already stipulated that the air quality objectives shall be the quality which should be achieved and maintained in order to promote the conservation and best use of air in the public interest. The protection of public health is a major consideration in the APCO for the sake of public interest. The Administration will continue to adopt "protection of public health" as a governing principle in establishing new AQOs.

28. Members had urged the Government to provide tax allowance or concession for purchase of products with eco-label certification. This is exactly the case for the listed environment-friendly petrol private cars and commercial vehicles. They are currently entitled to deduction of first registration tax. Furthermore, in the recent 2010-11 Budget, the Administration proposed to accelerate the tax deduction for capital expenditure on environment-friendly vehicles, so that enterprises can enjoy a 100% profits tax deduction in the first year. Similarly, since 2008/09, the Government has been providing 100% tax deduction for capital expenditure on environmental protection machinery in the first year. The depreciation period for environmental protection installations has also been reduced from 25 years to five years.

29. The challenges arising from climate change will impact on the whole society, and the Government will be mindful of its implications on the grassroots and the disadvantaged groups. The successful implementation of low carbon initiatives depends on the level of public support and participation. To encourage the public to lead a low carbon lifestyle, the Government has been actively disseminating environmental messages to the public in order to raise the awareness and strengthen the support of the community. Through the organization of "I love Hong Kong! I love Green!" promotional activities, the Government encourages the public to take up the practice of green and low carbon living. In addition, the Government has organized competitions such as the "Green School Award" and the "Hong Kong Awards for Environmental Excellence", produced education materials and organized workshops and

seminars on climate change, so as to raise the public's awareness on low carbon concepts in their daily lives.

Environment Bureau
May 2010

**Motion on “Advocating a low carbon life”
moved by Hon CHAN Hak-kan
at the Legislative Council meeting
of Wednesday, 10 March 2010**

**Motion as amended by Hon Audrey EU Yuet-mee, Hon KAM Nai-wai
and Dr Hon Priscilla LEUNG Mei-fun**

That, as the governments of various places are actively motivating their people and enterprises to lead a low carbon life so as to address global climate change and develop the environmental industry; in this connection, this Council urges the SAR Government to lead Hong Kong to become a low carbon and quality city through comprehensive policies and setting work targets and timetables, and the relevant measures should include:

- (a) to study the establishment of an effective mechanism to enable people to calculate carbon emissions in daily life on their own so as to understand their carbon footprints;
- (b) to study the introduction of a ‘carbon emission reduction bonus point scheme’, whereby the purchase of energy-saving products and reduction in electricity consumption can be exchanged into bonus points which can be used to pay fees of government services and facilities, so as to encourage people to save energy;
- (c) to study further expansion of the coverage of the ‘Mandatory Energy Efficiency Labelling Scheme’;
- (d) to actively promote the ‘Water Efficiency Labelling Scheme’, review its effectiveness and study the feasibility of its mandatory implementation;
- (e) to formulate effective policies to enhance source separation of waste, facilitate food waste recycling and reuse, and optimize the use of landfill gas;
- (f) to expand the scale of the Government’s green product procurement

and formulate a labelling system in this respect, so as to facilitate the development of a market for green products;

- (g) to promote the development of local organic agriculture and fisheries and improve the labelling system for organic products, so that people can purchase agriculture and fishery products with low carbon footprints;
- (h) to encourage enterprises to make efforts to reduce carbon emissions, including offering assistance in conducting carbon audits, upgrading emission reduction technology, and obtaining accredited certification, etc.;
- (i) to strengthen greening efforts to achieve the objectives of improving cityscape and reducing heat island effects;
- (j) to actively develop green transportation, including electric vehicles, install more escalators and expand cycling tracks to reduce carbon emissions arising from transport needs;
- (k) to step up publicity and education to encourage people to live a low carbon life; and
- (l) to enhance the support for the grassroots and the disadvantaged, so as to reduce the impacts on them caused by the society's transformation process to a low carbon city;
- (m) to improve and develop footbridge and subway networks, and encourage people to make more use of public transportation and mass transit systems;
- (n) to expeditiously legislate to ban idling vehicles with running engines, subsidize franchised bus companies to replace their high-polluting old-model vehicles, designate 'low emission zones' in areas with serious air pollution and restrict the entry of heavy diesel vehicles with high emissions into such zones, so as to improve roadside air quality;
- (o) to adopt the World Health Organization's Air Quality Guidelines for setting air quality benchmarks and the timetable for achieving such

benchmarks, and amend the Air Pollution Control Ordinance to make 'protecting public health' a statutory requirement; and

- (p) to expeditiously and directly subsidize people to use compact fluorescent lamps and other energy-saving products;
- (q) to provide tax allowance or concession for private enterprises which are willing to procure products with eco-label certification; and
- (r) to actively develop hybrid vehicles and advocate the use of biodiesel.