

Legislative Council Meeting of 25 April 2007
Motion Debate on “Overseas experience in air quality control, management of municipal solid waste, renewable energy and total water management”

Progress Report

At the Legislative Council meeting of 25 April 2007, Members passed a motion on “Overseas experience in air quality control, management of municipal solid waste, renewable energy and total water management”. The latest position of the Administration’s follow-up actions in response to various report findings recommended by Members in the motion is summarized below.

Report Findings	Present Position
Air quality control :	
<p>1. The delegation appreciates the commitment of Tokyo Metropolitan Government (TMG) in combating air pollution, which is an arduous problem requiring not only effective measures but also concerted efforts from all stakeholders. The delegation considers that the measures taken by TMG would provide useful reference for Hong Kong in tackling air pollution, in particularly the implementation of green roofing to reduce indoor room temperature.</p>	<p>We are determined to improve our air quality and have implemented a number of control measures. Good progress has been made. Compared with 1997, in 2005 the emissions of nitrogen oxides, particulates and volatile organic compounds in Hong Kong have been reduced by 15%, 36% and 26% respectively.</p> <p>In addition, the Government has been working for years to control emissions from motor vehicles. The measures have borne fruit: we are seeing improvement in air quality. Compared with 1999, the particulates and nitrogen oxides at the street level have dropped by 13% and 19% respectively. The number of smoky vehicles has also been reduced by about 80%.</p> <p>To further improve roadside air quality, the Government launched on 1 April 2007 new measures to reduce vehicle emissions. The measures</p>

included:

(a) To provide a one-off grant to encourage vehicle owners to replace their pre-Euro and Euro I diesel commercial vehicles with new commercial vehicles complying with the prevailing emission requirements for newly registered vehicles (which is now Euro IV standard). The Government has earmarked 3.2 billion for this programme.

There are altogether about 74,000 pre-Euro and Euro I diesel commercial vehicles in Hong Kong. The pre-Euro and Euro I vehicles have to be replaced within 18 and 36 months. If all eligible vehicles are replaced with Euro IV models, the emission of nitrogen oxides and particulates in Hong Kong can be reduced by 10% and 18% respectively.

(b) To encourage the use of environment-friendly petrol private cars, we offer a 30% reduction in first registration tax to buyers of newly registered environment-friendly petrol private cars, subject to a ceiling of \$50,000 per car.

We also plan to consult the public on a proposal to legislate against idling vehicles in 2007. We are also working on a proposal to strengthen

	<p>the control of emissions from petrol and LPG vehicles, including the use of roadside remote sensing equipment and the use of dynamometers for emission testing.</p>
<p>2. Given the low start-up and maintenance cost, the delegation considers that green roofing might be suitable for Hong Kong. However, there may be a need to address the concern about possible water seepage before green roofing can be applied on a large scale.</p>	<p>The Government completed the “Study on Green Roof Application in Hong Kong” in early 2007 and a seminar was held on 9 March 2007 to share the findings with professional institutions. The main objectives of the study are to conduct a brief review of the latest concepts and design technologies on green roof and recommend suitable technical guidelines that could be adopted in Hong Kong’s circumstances. This would help promote public understanding and awareness of the subject. The related study report and executive summary have been uploaded onto the Environment, Transport and Works Bureau’s website for public access. In order to further examine the horticultural/maintenance requirements of green roofs and the extent of room temperature reduction, We have identified about 20 retro-fitting green roof projects to be implemented in 2007/08.</p>
<p>3. Attention is also drawn to the need for the Administration to formulate an established policy and mechanism to allow exemption from counting Gross</p>	<p>The Administration has commissioned a consultancy study on sustainable building designs which aims at developing guidelines on sustainable building designs, and</p>

<p>Floor Area and bonus Gross Floor Area which may be granted to encourage the provision of green rooftops.</p>	<p>the provision of more green features is one of the issues under such study. We will carefully study the outcome of the report before deciding the way forward.</p>
<p>Management of municipal solid waste :</p>	
<p>4. Like other places, Tokyo adopts the “Rs” principle (i.e. reduce, reuse and recycle) in the management of municipal solid waste (MSW). The delegation however notes that public participation is what makes recycling so successful in Tokyo. Recycling in Tokyo starts at the community level where residents take the lead in separating recyclables from domestic waste. Non-recyclable waste is collected and treated at local incineration facilities. The distributed approach ensures that each ward is responsible for its own MSW. Given the concern about incinerators, particularly dioxin emission, extensive public consultation has to be carried out to solicit support from residents in the vicinity of the incineration facilities. By way of illustration, seven years have been taken to reach a consensus on the setting up of the Asahi Clean Centre in the Kawaguchi-city. Apart from</p>	<p>The Government has been promoting the “3Rs” principle (reduce, reuse and recycle) for many years. Since January 2005, we launched the Source Separation of Domestic Waste Programme. The objectives of the Programme are (a) to make it more convenient for residents to separate waste at source; and (b) to broaden the types of recyclables to be recovered, thereby improving waste recovery and reducing waste. As at end April 2007, there were 572 housing estates participating in the Programme, covering about 757,000 households and 32% of the population.</p> <p>To tackle our waste management problem in a comprehensive manner, the Government has also published a “Policy Framework for the Management of Municipal Solid Waste (2005-2014)” (Policy Framework) in December 2005. One of the key initiatives under the Policy Framework is the development of state-of-the-art integrated waste management facilities (IWMF) with thermal treatment as the core technology to achieve bulk reduction of waste. These facilities will comply with the most stringent environmental standards. We share the Delegation’s observation on the importance of stakeholder engagement and we will consult stakeholders as we take</p>

<p>discussions with the ward government and various political parties, meetings with residents were also held to gauge their views and allay their concerns about incineration. After extensive consultation, it was agreed that a community hall and a number of parks would be built along with the incineration facilities for the betterment of the community. As part of the community, the design of the Centre blends well with the surrounding and contains facilities, such as a health spa, men and women' baths, a relaxation lounge and other amenities, for the enjoyment of the residents. Members consider that this has illustrated the importance of consultation with stakeholders before the implementation of policies that have wide implications on the livelihood of the general public.</p>	<p>forward the development of IWMP and other initiatives under the Policy Framework.</p>
<p>5. The delegation is also impressed by the success of the Sapporo Recycling Complex in fostering the development of recycling industries. The turning of waste into useful materials has not only helped preserve valuable resources but also created business</p>	<p>The EcoPark aims to promote the development of environmental and recycling industries by providing long-term land at affordable costs for the trade. This will help develop a circular economy by turning waste into useful materials that can be channeled back to the local economic chain. During the planning and design stage of the EcoPark, We visited Sapporo</p>

<p>opportunities for enterprises. By way of illustration, the demand for PET-bottle flakes has become so great that the Hokkaido PET Bottle Recycling Co., Ltd. has to buy used PET bottles, instead of being paid, for recycling nowadays. Notwithstanding, the enterprise is still able to make a profit. Members consider that the successful experience of the Sapporo Recycling Complex can set a good example for the Eco Park in Hong Kong.</p>	<p>Recycling Centre (SRC) in 2005 to learn from their successful experience.</p> <p>Both the EcoPark and SRC projects are strongly supported by the respective governments to provide assistance to the environmental and recycling industries. The common supporting measures include:</p> <ol style="list-style-type: none"> (1) provide land equipped with basic infrastructure at affordable rental; (2) solicit acceptance of the project by the local community; (3) specify the waste types to be processed in different land lots to facilitate complementary operation and avoid unhealthy competition; (4) encourage waste exchange within the facility to enhance resource recovery; and (5) establish a visitor centre and a product gallery to raise public awareness of waste recycling and environmental protection. <p>Tenancies for the first batch of 3 lots in EcoPark Phase I were awarded in April 2007 for the recycling of locally collected waste plastics, waste vehicle tyres and waste wood.</p>
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Renewable energy :

<p>6. Based on the experience of Denmark, the delegation holds the view that wind power may be applied to Hong Kong on a larger scale, and that offshore wind farm may be a feasible option. Members however</p>	<p>The Government is promoting the use of renewable energy (RE) through various initiatives. Technology-wise, we conducted many studies relating to RE, including the “Study on the Potential Applications of RE in Hong Kong”,</p>
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<p>note that there are concerns about the potential effects of wind turbines on the marine environment, birds and fishing trades etc. In this connection, there is a need for the Government to conduct extensive research studies before a decision on the feasibility of offshore wind farm is made.</p>	<p>to evaluate the potential of developing on-shore and off-shore wind farms in Hong Kong.</p> <p>The two power companies are committed to setting up commercial-scale wind turbines. Hongkong Electric Company's wind turbine commenced operation in February 2006 and CLP Power has already completed their Environmental Impact Assessment (EIA) for the construction of a wind turbine at Hei Ling Chau. CLP's EIA report states that the indicative date for the operation of the wind turbine is in 2008. Currently, the two power companies are also conducting EIA studies for building off-shore commercial wind farms in Hong Kong waters.</p>
<p>7. As regards solar energy, the delegation agrees that this may not be suitable for commercial application given the relatively high cost. Nevertheless, the Government should endeavour to use solar energy in public facilities, such as schools, hospitals and government buildings, as an illustration of its commitment to improving the air quality in Hong Kong.</p>	<p>The Government issued a technical circular in November 2005, requiring works departments to incorporate RE technologies in all works projects as far as practicable. So far, the Government has implemented 39 RE projects in various government premises (including 25 solar photovoltaic projects and 10 solar water heating projects, with a total capacity of over 1,500 KW), with eight additional projects under planning.</p>
<p>8. Large corporations should also be encouraged to use</p>	<p>Currently, consumers with RE generating systems can request the</p>

<p>renewable energy as part of their corporate responsibility. To foster the development of renewable energy in Hong Kong, consideration should also be given to liberalizing the electricity market and allowing access to the grid by new companies to enhance competition as in the case of Denmark. The delegation is well aware that renewable energy is more expensive than energy from conventional fuels, but this is a price worth paying to protect the environment.</p>	<p>power companies to provide back-up electricity supply. The Electrical and Mechanical Services Department published the “Technical Guidelines on RE Power Systems” to assist the public to better understand the technical issues and the application procedures relating connecting small-scale RE installations to the grid. To further promote the use of RE, the Government will discuss with the power companies to extend the technical guidelines to cover RE systems with capacities over 200 kW, and to waive the nominal administrative fees for grid connection by RE users. In addition, the Government has already planned to further open up the electricity market in Hong Kong. We have proposed to shorten the next Scheme of Control Agreement between the Government and the power companies from 15 years to 10 years (i.e. to expire in 2018), with possible extension for another 5 years. We shall carry out the necessary preparations in the next regulatory period.</p>
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Total water management :

<p>9. Despite the fact that Finland has abundant water resources, the delegation is impressed by the commitment of the Finnish Government in the protection of such valuable resources. Its effort in</p>	<p>The Government continues the regular monitoring of the water quality in local water gathering grounds in Hong Kong in order to control pollution and to protect the precious water resources from contamination. On Dongjiang (DJ) water supply, the</p>
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<p>protecting trans-boundary watercourses with the neighbouring countries should set a good example for Hong Kong in establishing close rapport with the Guangdong Provincial Government in protecting the water resources in the Pearl River Delta Region, particularly when 70% to 80% of potable water in Hong Kong come from Dongjiang.</p>	<p>water quality has been improved significantly and has remained satisfactory upon commissioning of the entire dedicated aqueduct in June 2003 (to transfer DJ water at the intake from Taiyuan Pumping Station directly to Shenzhen Reservoir) and the implementation of a series of pollution prevention and control measures by the Guangdong authorities. Both HKSAR and Guangdong Provincial Governments will further enhance cooperation to protect the DJ water supply.</p> <p>We will continue to roll out various sewerage programme and enforce the laws concerning water pollution control to bring about further improvements in local water quality. We will also continue to work with our counterparts in Guangdong and Shenzhen under the auspices of the Hong Kong-Guangdong Joint Working Group on Sustainable Development and Environmental Protection, to secure improvements in contiguous water bodies.</p>
<p>10. Members are also impressed with the design of the Viikinmaki Wastewater Treatment Plant and the Paijanne Tunnel, both of which were built underground in rock cavern to minimize the possible impacts on the immediate environment. The experience may be applicable to Hong</p>	<p>We have a good record of planning to utilize caverns for waste and wastewater treatment and will continue to explore such opportunities in future planning of waste and wastewater treatment infrastructure.</p>

Kong given that many mountains in Hong Kong are capable of housing these treatment facilities.	
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Environment, Transport and Works Bureau
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