



Green Hong Kong



Environment Bureau



Environmental Protection Department



GREEN EVENT



同心耕耘廿五載 共創綠色新世代

25 Years of Sustained Effort for a Greener Future

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Hi-Tech Device Proposed to Detect Invisible Vehicle Pollutants



Remote sensing equipment could be deployed on Hong Kong's roads in the first half of 2013 to detect and screen out vehicles using petrol and liquefied petroleum gas (LPG) with excessive exhaust emissions.

The plan forms part of a package of proposals released by the Environmental Protection Department (EPD) on November 15 for a two-month consultation to seek the views of stakeholders, including relevant trades and the Legislative Council.

"Poorly maintained petrol and LPG vehicles emit excessive colourless exhaust gases, including nitrogen oxides, which are a significant cause of high roadside air pollution index (API) readings, hydrocarbons and carbon monoxide," said an EPD spokesman. "These gases are invisible but can be detected and measured by remote sensing equipment."

The Department has identified a number of roads and streets suitable for installing devices that would use infrared and ultraviolet beams to measure invisible concentrations of these pollutants.

Owners of vehicles with excessive emissions would be required to rectify the problem and undergo further testing at a designated centre or face cancellation of the vehicle licence.

The proposed scheme is similar to the existing Smoky Vehicle Control Programme, which targets diesel vehicles.

Measures Target Nitrogen Dioxide Pollution

The latest initiative follows a series of proactive measures over the past decade to improve roadside air quality, including by tightening the fuel and emission design standards of new vehicles.

Between 1999 and 2010, the levels of sulphur dioxide and respirable suspended particulates registered at roadside air quality monitoring stations were greatly reduced by 63 per cent and 34 per cent respectively.

However, the level of nitrogen dioxide (NO₂) bucked the trend and increased by 20 per cent in the same period. The high NO₂ levels at the roadside are the main cause of roadside APIs sometimes reaching "very high" levels (i.e. exceeding 100).

Road side measurement equipment.

Taxis and light buses account for a high proportion of these emissions in busy urban corridors, explained the EPD spokesman.

"Because of their high mileage, about 80 per cent of taxis and about 45 per cent of light buses emit excessively and require repair, for example, by replacing their catalytic converter."

One-off Subsidy Proposed

In recognition of this problem, the EPD has proposed setting aside \$150 million to offer a one-off subsidy to help vehicle owners to replace the catalytic converters and associated components of their LPG taxis and light buses before the implementation of the new control measures.

The Chief Executive earlier explained in his 2011-2012 Policy Address that the next focus for improving air quality would be to reduce roadside air pollution through a package of different measures.

To tackle the roadside NO₂ problem, the government is already making preparations to subsidise franchised bus companies to retrofit their Euro II and Euro III buses with selective catalytic reduction devices to reduce their nitrogen oxides emission.

In addition, subsequent to the completion of a one-off grant scheme to encourage the early replacement of pre-Euro and Euro I diesel commercial vehicles, the government has launched a similar one-off grant scheme for Euro II diesel commercial vehicles. It is also working together with the Guangdong Government on post-2010 emission reduction arrangements for the whole Pearl River Delta region to address issues including regional ozone and other air quality problems. ■



Green Knowledge

“Respirable Suspended Particulates(RSP), suspended particulates with an aerodynamic diameter of not larger than 10 micrometres, can penetrate deeply into the lungs. Depending on their sources, RSPs can be made up of different constituents.”



Ban on Idling Motor Vehicle Engines Comes Into Force

A statutory ban on idling engines took effect on December 15, marking another major step forward in Hong Kong's continuing efforts to curb roadside air pollution.

Under the **Motor Vehicle Idling** (Fixed Penalty) Ordinance, drivers are prohibited from leaving their vehicle engines idling for more than three minutes in any 60-minute period.

Enforcement staff may issue a Penalty Notice to drivers contravening the prohibition on idling engines, who would then be required to pay a penalty of \$320.

Apart from reducing air pollution, the new law would also lower heat and noise nuisance generated by motor vehicles with idling engines.

The measure applies to all roads in Hong Kong, including private roads and car parks. However, it would not cover electric vehicles and hybrid vehicles operating solely in electric



mode as they do not emit pollutants.

Limited Exemptions to the Ordinance

Exemptions are available to drivers in certain circumstances, such as when their vehicles become stationary due to traffic conditions or a traffic accident. Taxi drivers are also exempted when they are at a taxi stand as are the first two Red or Green Minibuses at a designated stand.

The Environmental Protection Department has been staging roving exhibitions since November to enhance public understanding of the major provisions of the Ordinance and promote green driving habits. These events will continue at different locations through to January

2012. The Ordinance comes into operation on 15 December 2011.

Using display panels and pamphlets, the exhibitions highlight the environmental and health impacts of idling engines and the advantages of switching them off. In addition, there are interactive multi-media games, a game booth and screening of a TV public service announcement.

The Environmental Protection Department has also launched extensive publicity and education programmes through various channels throughout Hong Kong to promote the message of switching off idling engines, and to enhance understanding by drivers and the general public of the implementation and coverage of the law. ■

Funding Approved for Green Transport Trials



Principal Environmental Protection Officer, Mr. Edmond Ho (third left) signs the subsidy agreement with the Managing Director of Federal Express (Hong Kong) Limited, Mr. Anthony Leung. The company is one of the 13 approved applicants

Financial support has been granted to 13 applicants for the trial of green and innovative transport technologies under the **Pilot Green Transport Fund**.

They were supported by the Fund's Steering Committee in September and the trials are expected to start in 2012.

The approved applications involve a total

subsidy of almost \$50 million for the trial of 16 electric buses and nine electric goods vehicles with gross weights ranging from 1.8 tonnes to 10 tonnes.

The electric buses will be used to provide non-franchised bus services including hotel and resident shuttles and employee and on-campus transportation.

Their routes cover extensive areas and different operating and road conditions, including services covering long distances, busy urban areas and steep roads, which can test the performance of electric buses under different environments.

Green Transport Can Ease Roadside Pollution

Motor vehicles are the main source of our roadside air pollution and they also contribute about 18 per cent of local greenhouse gas emissions.

As part of its commitment to promoting cleaner transportation, the Government set up the \$300 million Fund to encourage the public transport sector to test out green and low-carbon transport technologies.

It is open to applications by existing transport operators based in Hong Kong who operate ferries, taxis, public light buses, vehicles of charitable and non-profit-making organisations providing services to their clients, franchised buses and non-franchised public buses and goods vehicles.

Promoting green transport will not only improve air quality but will also reduce carbon emissions, which helps avert global climate change. ■





“Polluter Pays” Producer Responsibility Schemes Surge Ahead

The Hong Kong government is pressing ahead with plans to extend the [Environmental Levy Scheme on Plastic Shopping Bags \(PSBs\)](#) to cover all retailers.

At the same time, a new mandatory producer responsibility scheme (PRS) is being developed for the proper management of waste electrical and electronic equipment (WEEE).

Introduced under the Product Eco-responsibility Ordinance, the PSBs scheme was launched in 2009 as the first mandatory PRS in Hong Kong based on the “polluter pays” principle.

It currently applies to nearly 3,300 registered retail outlets that are required to charge customers 50 cents as an environmental levy for each plastic shopping bag provided to them.

Feedback collected in a three-month public consultation exercise that started in May 2011 was generally supportive of expanding the levy scheme to cover all retail outlets in Hong Kong. ■



The Under Secretary for the Environment, Dr Kitty Poon, joins kids in an interactive game promoting green living at the exhibition on the Extension of the Environmental Levy Scheme on Plastic Shopping Bags.

Environmental Levy Scheme on Plastic Shopping Bags – The Way Forward

The introduction of the Levy Scheme on PSBs has led to a 90 per cent reduction in the distribution of such bags by registered retail outlets. It has also encouraged the development of a Bring Your Own Bag (BYOB) habit. However, within retail categories other than the regulated sectors, PSB disposal at landfills increased by about 6 per cent from mid-2009 to mid-2010.

To take the scheme forward, the Environmental Protection Department (EPD) has proposed that:

*Free distribution of plastic shopping bags

be banned in the retail sales of any goods subject to exemptions; retailers should charge customers not less than 50 cents for each PSB provided.

*Exemption from the ban would be allowed for PSBs that are used to contain solely food, drink, medicine or other items for human or animal consumption, unless it has been packed in a manner that is securely segregated from the outside environment.

*Flat-top bags would be added and covered under regulation.

*Retailers may retain the PSB charge without the need of remitting it to the Government

*Inspections and surprise checks would be conducted and a fixed penalty system could be introduced.

Successful implementation of the proposed extension will rely primarily on community support to make behavioural change towards BYOB. In preparing for commencement of the extended PRS, the EPD would step up communication and publicity efforts with members of the public and retail trades to enhance their understanding of both the objectives and the compliance requirements under the extended scheme. ■

To ensure proper treatment of WEEE



The Secretary for the Environment, Mr Edward Yau, briefs the media on the public consultation on the mandatory producer responsibility scheme for waste electrical and electronic equipment.

Legislative proposals outlined by the Environmental Protection Department in November 2011 recommend a comprehensive PRS to ensure proper treatment of waste electrical and electronic equipment (WEEE) to be financed by a recycling fee included in the purchase of new electrical and electronic products at retail outlets.

This would cover mass-market items such as television sets, washing machines, refrigerators, air conditioners and computer products, which account for over 80 per cent of WEEE locally generated in Hong Kong.

The concept was generally supported by stakeholders and respondents to a public consultation in 2010.

In the past few years, more than 70 000 tonnes of WEEE were generated in Hong Kong annually. We therefore need to develop a local solution in the spirit of eco-responsibility to manage the WEEE problem. ■

Comprehensive Plan for Handling WEEE



WEEE Storage and Dismantling sites will be subject to licensing control in future under the PRS.

Key points in the EPD’s proposals include:

* A recycling fee would be collected at retail level upon purchase of new electrical and electronic products.

* Retailers would be required to provide free take-back service for WEEE for efficient collection.

* Licensing requirements would be imposed for the safe handling and environmentally sound storage and treatment of WEEE.

* Ban on disposal of regulated WEEE products at landfills.

* Import and export permit controls would be introduced for WEEE to prevent dumping in Hong Kong from other jurisdictions and to ensure proper treatment of WEEE already in Hong Kong.

To facilitate the scheme and mitigate business impact, it is proposed that a WEEE Management Contractor be procured through open tender to provide collection and recycling services. The Government would also support the development of a WEEE treatment plant at a reserved site of about three hectares at EcoPark. ■



Food Waste Reduction and Recycling at Housing Estates



← The posters of Food Waste Recycling Projects in Housing Estates.

A new initiative to encourage housing estates to promote food waste reduction and to undertake on-site treatment of food waste will soon be up and running.

The Environment and Conservation Fund has approved applications from 11 estates for funding in the first phase of its Food Waste Recycling Projects in Housing Estates scheme launched in July 2011.

Food waste accounts for about one-third (i.e. 3,000 tonnes) of the municipal solid waste disposed of at Hong Kong's landfills every day, of which about 2,000 tonnes of food waste is produced by domestic households.

As such, the Government attaches high priority to seeking to avoid and minimise food waste generation, and to recycle the food waste that is still generated and turn it into a useful resource.

The new initiative offers financial assistance to subsidise housing estates for installing on-site food waste treatment facilities and introducing relevant supporting facilities and services. It also aims to encourage households to separate domestic food waste at source.

A spokesman for the Environmental Protection Department (EPD) said there has been a very encouraging response to the scheme.

It is anticipated that on-site food waste treatment facilities will be installed at the 11 housing estates for operation by the first quarter of 2012.

Each facility will turn 50 to 100 kilograms of source-separated food waste each day into compost that will be used for landscape applications.

At the same time, associated education and promotion programmes will be launched for the residents to encourage their active participation and raise awareness towards food waste reduction and recovery.

A total of about \$9 million in funding has been approved for the 11 housing estates from the \$50 million set aside for the Food Waste Recycling Projects in Housing Estates initiative.

The EPD spokesman said they plan to roll out the second phase of the scheme after summing up the experience in recovery and treatment of food waste on-site in housing estates.

“In the meantime, we will closely monitor the progress of the scheme and continue with publicity and education on food waste reduction,” he added. ■

Increasing Community Knowledge of POPs

How much do you know about Persistent Organic Pollutants (POPs)?

To enhance public awareness, the Environmental Protection Department is staging a **roving exhibition** at nine locations across Hong Kong from November 7, 2011 to March 12, 2012.

POPs are organic compounds often resulting from industrial processes that have proven to be resistant to environmental degradation and pose potential risks to food chains, human and animal health and the environment.

Through this roving exhibition, the public will gain a better understanding of the efforts by various government departments in the management of POPs and how our daily lifestyle would help reduce the impact of POPs on the environment and human health.

The exhibition kicked off at Java Road Sports Centre in North Point from November 7 – 20 and moves on to seven locations in Kowloon and the New Territories before wrapping up at Revenue Tower in Wan Chai from February 27 to March 12, 2012.

The event is being held to celebrate the 10th anniversary of the signing of the Stockholm Convention on Persistent Organic Pollutants, a global treaty to protect human health and the environment from chemicals that remain intact in the environment for long periods. ■



↑ A roving exhibition on POPs is being staged from Nov 7, 2011 to Mar 12, 2012 at 9 locations in Hong Kong, including G/F, Cheung Sha Wan Government Offices in the picture.



Cleaner, Greener Production in PRD



Mr Yau (second left, front row), the Director-General of the Department of Energy Conservation and Comprehensive Utilisation of the Ministry of Industry and Information Technology, Mr Zhou Changyi (first left, front row), and the Vice-Director of the Economic and Information Commission of Guangdong Province, Ms Bi Zhijian (second right, front row), pictured with representatives from enterprises recognised as "Hong Kong - Guangdong Cleaner Production Partners".

A programme to encourage and facilitate Hong Kong-owned factories in the Pearl River Delta (PRD) region to adopt cleaner production technologies and practices continues to show encouraging results.

A total of 113 Hong Kong-owned manufacturing enterprises, six sourcing enterprises and 20 environmental technology service providers were recognised as "Hong Kong - Guangdong Cleaner Production Partners" at a presentation ceremony on October 27.

Officiating at the event, Secretary for the Environment, Mr Edward Yau, said, "Promoting cleaner production by enterprises is one of the key initiatives of Hong Kong-Guangdong co-operation on improving the environment in the region."

Green Benefits

There are also other benefits for the participating enterprises. Cleaner production can enable them to save energy and reduce material

consumption, leading to cost savings, enhanced competitiveness and a sharper corporate image.

The Hong Kong - Guangdong Cleaner Production Partners Recognition Scheme was jointly launched in August 2009 by Hong Kong's Environment Bureau and the Economic and Information Commission of Guangdong Province.

Speaking at the presentation ceremony, Director-General of the Department of Energy Conservation and Comprehensive Utilisation of the Ministry of Industry and Information Technology, Mr Zhou Changyi, said the Cleaner Production Partnership Programme (the Programme) has "effectively incentivised Hong Kong enterprises in adopting cleaner production technologies, and goes a long way in helping to protect the regional environment as well as promote sustainable economic development."

Under the Programme, the Hong Kong Productivity Council, in conjunction with environmental technology service providers in Hong Kong and Guangdong, offers professional advice and technical support to Hong Kong-owned factories in the PRD region to encourage and assist them in adopting cleaner production technologies and practices. By reducing emissions and enhancing energy efficiency, participating factories have contributed to regional environment improvement efforts.

Naming Competition for Hong Kong's First Zero Carbon Building

A naming competition has been launched for Hong Kong's first zero carbon building in Sheung Yuet Road, Kowloon Bay.

The contest aims to raise public awareness and interest in carbon emissions cut and to find suitable names for the building in both Chinese and English. The names should be easy and simple to remember as well as creative and able to represent the vision and significance of "Hong Kong's First Zero Carbon Building".

The competition is organised by the Construction Industry Council (CIC) with the support of the Environmental Protection Department and organizations from public and private sectors.

The deadline for entries is January 31, 2012

and there are a range of cash prizes for the best submissions in Chinese and English for both the Open and Student categories.

The winners may also have the enduring honour of having their entries selected as the final name for this landmark green project.

The zero carbon building, which is being developed by CIC, in collaboration with the Development Bureau, is due for completion in mid-2012 and will adopt a state-of-the-art eco-building design and technologies, some for the first time in Hong Kong, and become a showcase to inspire positive change in public and industry attitudes towards carbon reduction and sustainable living.



Concept of Hong Kong's first Zero Carbon Building.



Driving Toward a Greener Hong Kong



↑ The Under Secretary for the Environment, Dr Kitty Poon (fifth left), the Director of Electrical and Mechanical Services, Mr Stephen Chan (first right), and representatives of participating organisations launch the “Electric Vehicles - Driving Toward a Greener Hong Kong” exhibition.

The latest electric vehicle technology was on public display in a two-day exhibition at Hong Kong Science Park in October with 15 organisations showcasing a variety of EVs ranging from motorcycles to saloon cars, vans, trucks and buses as well as EV charging technologies.

The exhibition, entitled “Electric Vehicles - Driving Toward a Greener Hong Kong”, aimed to promote the wider use of EVs locally.

Jointly organised by the Environment Bureau and the Electrical and Mechanical Services Department, it was held alongside an Asia-Pacific Economic Co-operation (APEC) Workshop on Energy and Green Transport Benefits of Electric Vehicles.

Officiating at the opening of the workshop, Under Secretary for the Environment, Dr Kitty Poon, said, “This EV workshop clearly underlines the strategic importance that Hong Kong attaches to promoting the wider adoption of EVs, which helps to improve roadside air quality, reduce greenhouse gas emissions and promote the development of a green economy.”

Reducing Roadside Air Pollution

She also highlighted the measures implemented to promote the use of EVs in Hong Kong, as well as the initiatives announced by the Chief Executive in his Policy Address to

reduce roadside air pollution.

“The promotion and development of EVs requires concerted efforts and collaboration by members of the international community. This APEC workshop provides a valuable opportunity for member economies to collectively review and discuss all subjects relevant to the adoption of EVs, from policy and strategy formulation to technology development and experience sharing,” Dr Poon said.



The two-day workshop, which was co-organised by the Mainland and Hong Kong, was well attended by speakers and delegates from various APEC economies. ■

↑ The Under Secretary for the Environment, Dr Kitty Poon (centre) tours the EV exhibition.

Public Views Collected on Energy Saving in Buildings



↑ A publicity event jointly organised by Sustainable Development Council and Radio Television Hong Kong.

The four-month views collection phase of the Council for Sustainable Development’s public engagement process on “Combating Climate Change: Energy Saving and Carbon Emission Reduction in Buildings” ended on December 4.

This public engagement exercise aims at further promoting energy saving and energy efficiency in buildings which would in turn lead to a reduction in greenhouse gas emissions and contribute to combating climate change.

The Council will now analyse the views collected with the assistance of an independent reporting agency before formulating recommendations on the way forward. ■

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