

For information on
23 March 2015

**LEGISLATIVE COUNCIL
PANEL ON ENVIRONMENTAL AFFAIRS**

**2015-16 BUDGET-RELATED INITIATIVES OF
ENVIRONMENTAL PROTECTION**

PURPOSE

The Financial Secretary delivered the 2015-16 Budget Speech on 25 February 2015. This paper elaborates the initiatives relating to environmental protection.

KEY INITIATIVES

Improving Air Quality

(A) **Ex-gratia Payment Scheme for Phasing Out Pre-Euro IV Diesel Commercial Vehicles**

2. Diesel commercial vehicles (DCVs) are one of the major sources of roadside air pollution in Hong Kong. To improve roadside air quality and better protect public health, the Government launched an incentive-cum-regulatory scheme in March 2014 to progressively phase out 82 000 pre-Euro IV DCVs by the end of 2019, involving an ex-gratia payment of \$11.4 billion to assist the affected vehicle owners.

3. Since its launch, the scheme has received good response. As of end February 2015, about 23 600 of these vehicles (i.e. about 29% of the eligible vehicles) have been retired under the scheme, with an approved ex-gratia payment amounting to some \$2 890 million. We will report the progress of the scheme to the Panel on an annual basis and present the first report this April.

(B) One-off subsidy to replace catalytic converters and oxygen sensors of liquefied petroleum gas taxis and light buses

4. The levels of carbon monoxide, hydrocarbons and nitrogen oxides emitted by poorly maintained petrol and liquefied petroleum gas (LPG) vehicles could be tenfold of their normal levels. Among these pollutants, hydrocarbons and nitrogen oxides are the major causes of roadside air pollution.

5. In August 2013, the Government launched a one-off subsidy scheme to replace the worn out catalytic converters and oxygen sensors of petrol and LPG taxis, and light buses to reduce their emissions. It was a voluntary scheme aiming at helping owners of petrol and LPG taxis, and light buses to build up a practice to properly maintain their vehicles. The scheme was completed in April 2014 with about 17 000 or about 80% of eligible taxis and light buses participated in the scheme. The amount of subsidy was about \$80 million.

6. Starting from 1 September 2014, we have deployed remote sensing equipment to screen petrol and LPG vehicles with excessive emissions. Owners of vehicles found to have excessive emissions will be notified by an emission testing notice issued by the Environmental Protection Department (EPD). Their vehicles will then be required to pass a dynamometer-based emission test at a designated vehicle emission testing centre within the specified time frame so as to ensure the problem is rectified. Failure to meet the requirement will lead to cancellation of the licence of the vehicle concerned. As at end February 2015, we have checked some 270 000 vehicle counts and issued about 1 700 emission testing notices to owners requesting them to repair their vehicles and to rectify the excessive emissions.

(C) Promotion of electric vehicles

7. Electric vehicles (EVs) have no tailpipe emissions. The use of EVs in lieu of conventional vehicles not only help improve roadside air quality but also reduce greenhouse gas emissions to combat climate change. To promote the use of EVs, the First Registration Tax for EVs has been waived since 1994 and the exemption has been extended in 2014 for another three years up to 31 March 2017.

8. The availability of charging facilities is crucial to promoting the wider adoption of EVs. We have therefore been working with the private sector in expanding the EV charging infrastructure. We installed 100 EV medium chargers for public use at 16 government car parks in August 2014. Together with the

charging facilities set up by the private sector, there are now some 1 100 EV chargers including over 150 medium and 30 quick chargers in Hong Kong. As compared to standard chargers, these medium chargers and quick chargers can save up to 60% and 90% charging time of EVs respectively. Given the efforts in promoting the use of EVs, there has been a significant growth in EVs in Hong Kong. As at end February 2015, there were 1 804 EVs, up from less than 100 in end 2010.

(D) Port Facilities and Light Dues Incentive Scheme for Ocean Going Vessels

9. Marine vessels, especially the ocean going vessels (OGVs), are the largest local air pollution emission source in Hong Kong. In 2012, there were about 30 000 of OGVs visiting Hong Kong and their emissions accounted for 78%, 68% and 42% of the total sulphur dioxide (SO₂), respirable suspended particulates (RSP) and nitrogen oxides (NO_x) emission in marine sector respectively. Areas in the vicinity of the Kwai Chung Container Ports and along OGVs' channels are more susceptible to OGV's emissions.

10. OGVs generally run on heavy fuel oil with an average sulphur content of 2.6%. This sulphur content is 52 times and 2 600 times more than that in marine light diesel and motor vehicles diesel respectively. Sulphur dioxide emissions from OGVs at berth account for about 40% of their total SO₂ emissions.

11. To encourage OGVs to switch to low sulphur marine fuel (i.e. fuel with sulphur content not exceeding 0.5%) while at berth, the Government launched a 3-year Port Facilities and Light Dues Incentive Scheme on 26 September 2012. Under the Incentive Scheme, OGVs switching to low sulphur marine fuel while at berth can enjoy 50% reduction in port dues which can offset about 35-50% of the additional cost due to switching to low sulphur marine fuel. It is a voluntary scheme with a participation rate of about 13% of the eligible vessels.

12. To further reduce emission from vessels so as to improve air quality, the Government tabled a new regulation^[1] to the Legislative Council (LegCo) this month to mandate OGVs to switch to compliant fuel (i.e. low sulphur marine fuel, liquefied natural gas or other approved fuel) while at berth. If approved by the Council, mandatory fuel switch for OGVs at berth will take effect on 1 July 2015. Implementing the new regulation will reduce 12% of the total SO₂ emissions and 6% of the total RSP emissions in Hong Kong.

¹ The Air Pollution Control (Ocean Going Vessels) (Fuel at Berth) Regulation

13. Hong Kong will be the first Asian city to mandate fuel switch at berth. To ensure smooth implementation of the new regulation and to maintain Hong Kong's port competitiveness, the Financial Secretary in his Budget Speech 2015-16 announced that the incentive scheme would be extended for 30 months up to 31 March 2018 which will involve revenue foregone of \$240 million.

(E) Cleaner Production Partnership Programme

14. EPD launched the Cleaner Production Partnership Programme (the Programme) in collaboration with the Economic and Information Commission of Guangdong Province in April 2008. The Programme aims to encourage and facilitate Hong Kong-owned factories operating in Guangdong and Hong Kong to adopt cleaner production technologies and practices, thereby contributing to the improvement of the regional environment, in particular the air quality.

15. The Programme has been making good progress. As at end February 2015, over 2 400 funding applications were approved under the Programme. About 390 awareness and technology promotion activities had also been organised with over 34 000 participants. While the Programme is primarily a technology promotion initiative, it has also brought about significant environmental and economic benefits to the region with an estimated annual reduction of volatile organic compounds by 11 300 tonnes, sulphur dioxide by 5 100 tonnes, nitrogen oxides by 11 800 tonnes, and effluent discharges by 17.8 million tonnes. The estimated annual savings in energy and production costs amount to some 10 700 tera-joules and \$1 700 million respectively.

16. The current Programme will complete on 31 March 2015. As stated in the Financial Secretary's 2015-16 Budget Speech, we will extend the Programme for another five years with an additional funding of \$150 million. In the new phase of the Programme, we will continue to provide funding support for participating factories to carry out on-site improvement assessments and demonstration projects, as well as to strengthen technology promotion and publicity activities. We plan to roll out the new phase as soon as the funding required is approved by the LegCo in the context of the Appropriation Bill. We briefed Members on our plan to extend the Programme at the Panel meeting on 25 February 2015.

Improving Water Quality

(F) Water Quality of Victoria Harbour

17. We are committed to improving the water quality of Victoria Harbour. In the past two decades, we have been implementing the Harbour Area Treatment Scheme (HATS) to collect and treat sewage generated around Victoria Harbour. The commissioning of HATS Stage 1 in 2001 has improved the water quality of the main water body of Victoria Harbour, which will be further improved upon the commissioning of HATS Stage 2A in 2015. Yet improvements in water quality have mainly been seen in waters away from the coast and the quality of coastal waters still needs further improvements. We therefore need to carry out a consultancy study to identify the specific causes of near shore pollution through evidence-based reviews and various analyses. The study will then identify targeted solutions through prevention at source and pollution control measures, with the long-term objective of enhancing the leisure and amenity value of the coastal areas of Victoria Harbour.

WAY FORWARD

18. Members are invited to note the above initiatives relating to environmental protection in the 2015-16 Budget Speech.

**Environment Bureau/Environment Protection Department
March 2015**