

**Pearl River Delta Regional Air Quality Management Plan
Enhanced Control Measures of the HKSAR**

| Measures | Implementation Programme | Progress (Up to 30.11.2009) |
|---|--|--|
| Encourage replacement of diesel light buses with ones using clean fuel | Since 2002, the Government has offered incentives to diesel light bus owners to encourage replacement of diesel light buses with liquefied petroleum gas (LPG) or electric ones. | <p>The incentive scheme was introduced in August 2002 and completed by 31 December 2005.</p> <p>As at the end of November 2009, there were 2,669 public LPG light buses, accounting for approximately 61% of the entire public light bus fleet.</p> |
| Require retrofitting of particulate removal devices on pre-Euro diesel vehicles (Item completed) | With effect from 1 April 2007, pre-Euro diesel vehicles have to be installed with approved particulate removal devices. | <p>Financial assistance was provided in phases from December 2002 to December 2005 to retrofit pre-Euro heavy-duty diesel vehicles with catalytic converters. All together, about 36 500 eligible vehicles were installed with catalytic converters.</p> <p>Since April 2006, all pre-Euro heavy-duty diesel vehicles (including franchised buses), except those operate under long-idling situations (including lorries with cranes mounted, concrete mixers, pressure tankers and gully emptiers), were required to be installed with approved emission reduction devices. This requirement was extended to the “long-idling” vehicles since April 2007.</p> |

| Measures | Implementation Programme | Progress (Up to 30.11.2009) |
|--|---|---|
| Encourage vehicle owners to replace pre-Euro and Euro I commercial diesel vehicles with Euro IV models | A financial incentive scheme was introduced in the second quarter of 2007. | <p>The Government has offered a one-off grant for the period of 1 April 2007 to 31 March 2010 to vehicle owners to encourage the early replacement of pre-Euro and Euro I diesel commercial vehicles with new ones which comply with the statutory emission standards for newly registered vehicles (which is now the Euro IV emission standards).</p> <p>A total of 13,049 applications have been approved (as at the end of November 2009).</p> |
| Encourage members of public to use environmentally friendly private petrol vehicles | With effect from 1 April 2007, a 30% reduction in the First Registration Tax (FRT) was offered to the purchasers of environment-friendly private petrol vehicles, subject to a cap of \$50,000 per vehicle. | A total of 10,387 environment-friendly private petrol vehicles were approved under the scheme (as at the end of November 2009). |
| Encourage use of environment-friendly commercial vehicles | With effect from 1 April 2008, a reduction in First Registration Tax would be offered to the purchasers of environment-friendly commercial vehicles. | A total of 395 environment-friendly commercial vehicles were approved under the scheme (as at the end of November 2009). |
| Encourage the use of electric vehicles | To promote the use of electric vehicles (EV) in Hong Kong through a series of measures in 2009. | <p>The First Registration Tax for EV is waived for a period of 5 years till March 2014.</p> <p>The Government commenced a trial run of Mitsubishi EV in May 2009 and, together with the Municipal Government of Shenzhen, another trial run of BYD's dual-mode plug-in hybrid vehicle starting from July 2009. The Government has also decided to procure its first batch of Mitsubishi 'i MiEV totaling 10 units.</p> <p>The Government will collaborate with the two local power companies to launch a EV leasing scheme by end 2010, so that a wider</p> |

| Measures | Implementation Programme | Progress (Up to 30.11.2009) |
|--|--|--|
| | | section of the community may gain access to EV driving experience. |
| Require drivers to switch off idling vehicles with running engines | Submission of the enabling legislation to the Legislative Council within 2009-10 legislative year for early implementation. | Result of public consultation concluded in March 2008 reveals that the public widely supports the proposal to require drivers to switch off idling vehicles with running engines through legislation. Taking into consideration the operational need of the transport trade, effectiveness of control measures on abating environmental nuisances as well as law enforcement issues, the Government revised the proposed exemption arrangements. The Government is preparing the enabling legislation and will introduce it to the Legislative Council in the 2009-10 legislative year for early implementation. |
| Strengthen control of emissions from petrol and LPG vehicles | To consult stakeholders on proposals to strengthen the control of emissions, including the use of roadside remote sensing device and chassis dynamometer for emission testing. | The Government will put forward a proposal to consult the stakeholders in 2010. |
| Tighten emission standard for in-use diesel vehicles | To study the further tightening of dark smoke emission standard for in-use diesel vehicles. | The Government will continue to study the matter, and aim to consult the transport trade in the 2009-10 legislative year. |

| Measures | Implementation Programme | Progress (Up to 30.11.2009) |
|---|---|---|
| Enhance vapour recovery systems in petrol filling stations (Item completed) | The Air Pollution Control (Petrol Filling Stations) (Vapour Recovery) Regulation was amended in 2004 to require the recovery of petrol vapour emitted during vehicle refuelling at petrol filling stations, with effect from 31 March 2005. | Since 31 March 2005, all newly built petrol filling stations have to be installed with vapour recovery systems. Since 31 March 2008, all petrol filling stations have been retrofitted with such systems to recover petrol vapour emitted during refuelling. |
| Tighten motor fuel standard | The motor fuel standard was tightened to the Euro IV standard by 2005 (the motor diesel standard has already been tightened to the Euro IV standard since 2002). (Item completed) | The Euro IV petrol standard came into effect on 1 January 2005. |
| | To introduce the supply of motor vehicle fuels meeting the Euro V standard. | With effect from 14 July 2008, the duty rate for Euro V motor vehicle diesel has been waived to encourage the use of more environment-friendly fuels on the local market. The Government consulted the Panel on Environmental Affairs on a proposal to raise the vehicle fuel standard to the Euro V level (with 80% less sulphur content than Euro IV motor vehicle fuels) in November 2009. |
| | To develop specifications and regulations on the use of biodiesel as vehicle fuel in Hong Kong. | Consultation with the trades on the biodiesel specifications has been completed. The Government is preparing the necessary regulatory framework with a view to implementing the specifications and regulatory control in 2010. |
| Tighten emission standard for newly registered | The Euro IV emission standard was adopted since 2006. (Item completed) | The Euro IV emission standard was introduced on 1 January 2007 for all newly registered vehicles. |

| Measures | Implementation Programme | Progress (Up to 30.11.2009) |
|---|--|---|
| vehicles | To follow the European Union in adopting the Euro V motor vehicles standard for tailpipe emissions. | The Government has been providing tax concessions on purchases of Euro V commercial vehicles since April 2008. Given the current supply situation of these vehicles in Hong Kong, we are not yet ready to follow EU to tighten the vehicle emission standard to Euro V level. The Government will keep in view the vehicle supply situation and tighten the emission standard as soon as practicable. |
| Low emission zone pilot scheme | To examine the feasibility of setting up a pilot low emission zone at busy corridors to restrict franchised buses with high exhaust emissions from entering the zone. | The study is in progress. |
| Use of cleaner fuels by ferries | To look into the use of cleaner fuels by local ferries. | The Government set up an inter-departmental working group in December 2007 to develop a trial scheme on the use of ultra low sulphur diesel [ULSD] (sulphur content not more than 0.005%) by local ferries. The trial was commenced in August 2009. The Government will map out the way forward having regard to the findings of the trial upon its completion in 2010. |
| Control emissions from off-road mobile sources operating within the airport and ports | To draw up measures, including formulation of emission standards, to control emissions from off-road mobile sources operating within the airport and ports (including mobile machinery and off-road vehicles). | The Government is considering the necessary control measures and will launch a trade consultation in 2010. |

| Measures | Implementation Programme | Progress (Up to 30.11.2009) |
|--|--|--|
| <p>Reduce volatile organic compounds (VOC) emissions from printing process, paints and consumer products</p> | <p>To introduce legislation in 2004 or 2005 to require the labeling of VOC content on VOC products.</p> <p>(Item completed)</p> <hr/> <p>Legislation will then be introduced in phases to reduce the use of products with high VOC contents and to impose emission standards for the printing process.</p> | <p>Since 1 April 2007, the Government has enforced the Air Pollution Control (Volatile Organic Compounds) Regulation in phases to restrict the VOC content of architectural paints/coatings, printing inks and six major types of selected consumer products (i.e. air fresheners, hairsprays, multi-purpose lubricants, floor wax strippers, insecticides and insect repellents). Lithographic heatset printing machines are also required to be installed with emission control devices.</p> <p>The Regulation was amended on 14 October 2009 to extend the control to other VOC-containing products, including adhesives, sealants and vehicle refinishing paints, as well as vessel and pleasure craft paints. It will be implemented in phases starting from 1 January 2010.</p> |
| <p>Reduce emissions from power stations</p> | <p>Effective and flexible mechanisms will be set up to control the total emissions of sulphur dioxide (SO₂), nitrogen oxides (NO_x) and respirable suspended particulates (RSP) from power stations to achieve respective reduction targets by 2010.</p> | <p>The Government approved the emission reduction options set out in the financial plans of the two power companies in June 2005. CLP Power Hong Kong Limited (CLP) will provide desulphurization (FGD) systems and denitrification systems for four of its coal-fired generating units, each of 677MW. The two systems will be commissioned by phases between 2010 and 2011. In addition, CLP has been increasing the use of ultra low sulphur coal. Hong Kong Electric Co. Ltd. (HEC) will install low-NO_x burners and FGD systems for two of its coal-fired generating units, each of 350MW; and a FGD system for a coal-fired generating unit of 250MW. The first phase of HEC's installation works (including installation of FGD system and low-NO_x burner for a coal-fired generating unit of 350MW) had already been completed and was put into operation in July 2009. The remaining works will be completed by end</p> |

| Measures | Implementation Programme | Progress (Up to 30.11.2009) |
|----------|---|---|
| | | <p>2010.</p> <p>HEC had commissioned its first natural gas generation unit of 335MW in October 2006. The first commercial scale wind turbine power generation unit of 800kW was also commissioned in Hong Kong in February 2006.</p> |
| | <p>To control total emissions from power plants and allow emission trading.</p> <p>(Item completed)</p> | <p>Since August 2005, emission caps have been set and tightened progressively during the renewal of Special Process Licences (SPLs) for CLP's Castle Peak Power Station, Black Point Power Station and Penny's Bay Power Station as well as HEC's Lamma Power Station, with a view to reducing emissions for achieving the 2010 reduction targets.</p> <p>The Air Pollution Control (Amendment) Ordinance 2008 was enacted in July 2008. It provides for stipulating the emission caps for the power plants in Hong Kong in 2010 and beyond in the Technical Memorandum for Allocation of Emission Allowances in respect of Specified Licences. Power plants are also allowed to conduct emission trading as an alternative means for compliance with the emission caps.</p> <p>The Government promulgated the first Technical Memorandum for Allocation of Emission Allowances in respect of</p> |

| Measures | Implementation Programme | Progress (Up to 30.11.2009) |
|----------|---|--|
| | | <p>Specified Licences in December 2008. It provides a clear statutory framework for imposing the respective 2010 emission caps on the power companies.</p> |
| | <p>To promote the wider use of clean fuels.</p> | <p>The Memorandum of Understanding (MOU) signed between the Government and the National Energy Administration on 28 August 2008 ensures a continuous supply of nuclear electricity and natural gas to Hong Kong in the coming two decades, with a view to promoting wider use of clean fuels and reducing emissions from power plants. After signing the MOU, the Government and the energy enterprises on both sides have followed up on the implementation of the MOU. The Shenzhen-Hong Kong spur line of the Second West-East Natural Gas Pipeline and the liquefied natural gas (LNG) terminal in Shenzhen to be jointly constructed by energy enterprises of both sides are anticipated to be completed in 2013.</p> <p>In September 2009, the Government gave approval to CLP to extend the contract for supply of nuclear electricity from Daya Bay Nuclear Power Station (Daya Bay) for another term of 20 years from 7 May 2014 to 6 May 2034.</p> |

| Measures | Implementation Programme | Progress (Up to 30.11.2009) |
|--|--|--|
| <p>Reduce emissions from industrial and commercial processes</p> <p>(Item completed)</p> | <p>To mandate the use of ultra-low sulphur diesel (ULSD) in industrial and commercial processes.</p> | <p>LegCo passed the Air Pollution Control (Fuel Restriction) (Amendment) Regulation, which came into effect on 1 October 2008.</p> |
| <p>Enhance energy efficiency of buildings</p> | <p>To introduce mandatory implementation of the Building Energy Codes (BEC).</p> | <p>Public consultation on the proposal of mandatory implementation of BECs was completed on 31 March 2008. The Government introduced a Bill for the mandatory implementation of BEC to Legislative Council in early December 2009.</p> |
| | <p>To implement a comprehensive target-based green performance framework for government buildings.</p> | <p>The Government issued an internal circular in April 2009 on the implementation of a comprehensive target-based environmental performance framework in government buildings. Targets on various aspects of environmental performance have been set for new and existing government buildings. The Government will continue to implement this target-based framework and promote energy saving in government buildings.</p> |
| <p>Mandatory Energy Efficiency Labelling Scheme</p> | <p>To launch the Mandatory Energy Efficiency Labelling Scheme.</p> | <p>The Legislative Council passed the Energy Efficiency (Labelling of Products) Ordinance. The initial phase of the Mandatory Energy Efficiency Labelling Scheme, which covers three types of products including room air conditioners, refrigerating appliances and compact fluorescent lamps, came into operation in November 2009.</p> <p>The Government introduced in September 2009 amendments to the Energy Efficiency (Labelling of Products) Ordinance for including washing machines and dehumidifiers in the second phase of the scheme.</p> |

| Measures | Implementation Programme | Progress (Up to 30.11.2009) |
|--|--|--|
| Encourage and facilitate adoption of cleaner production technologies and practices | A five-year programme to be launched to give professional and technical support to Hong Kong-owned factories in the Pearl River Delta (PRD) Region to adopt cleaner production technologies and practices. | <p>Working with the Guangdong Provincial Economic & Trade Commission (now the Economic & Information Technology Commission of Guangdong Province, 廣東省經濟和資訊化委員會) and major Hong Kong industry associations, the Government launched the “Cleaner Production Partnership Programme” on 18 April 2008 to encourage and facilitate Hong Kong-owned factories in the PRD to adopt cleaner production technologies and practices.</p> <p>The Government and the Economic & Information Technology Commission of Guangdong Province (廣東省經濟和資訊化委員會) jointly launched the Hong Kong-Guangdong Cleaner Production Partners Recognition Scheme on 28 August 2009. The Scheme aims to recognize those Hong Kong-owned factories that have performed well in this area, and to encourage them to continue to pursue cleaner production.</p> |