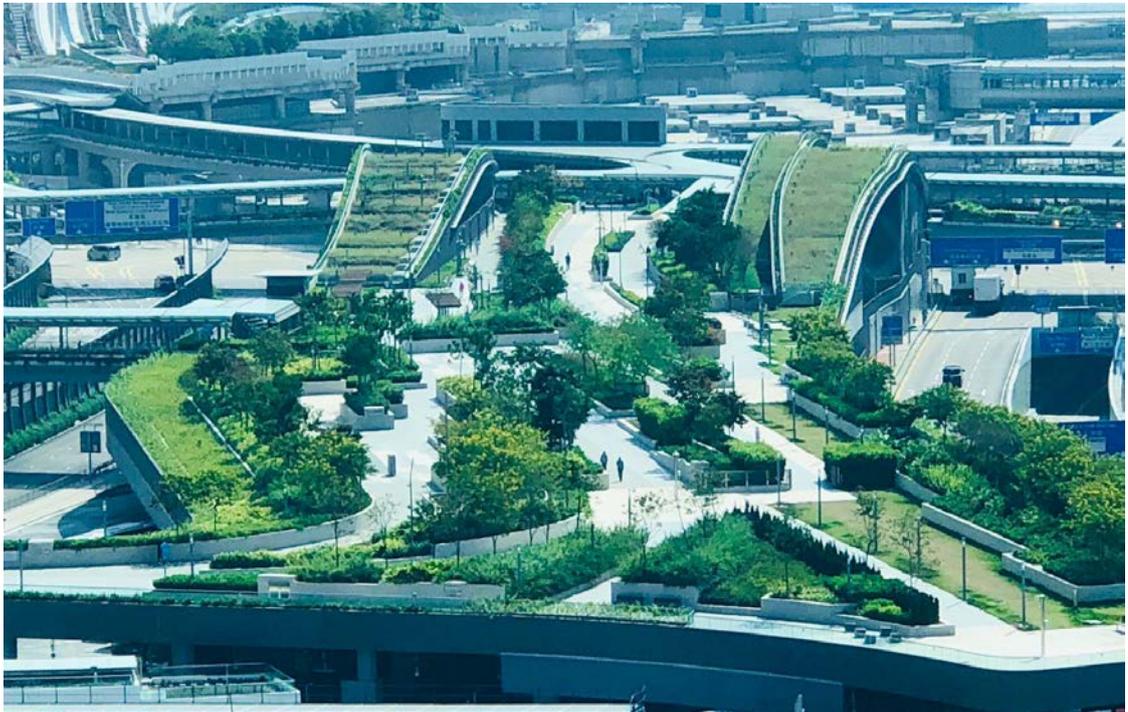


# Environmental Report 2018

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Rooftop Garden at West Kowloon Station Bus Terminus

## ***FOREWORD***

The Transport Department is fully committed to environmental protection. We are conscious of the commitments under the Clean Air Charter and have been working whole-heartedly to improve air quality by taking proactive measures to mitigate the air pollution generated from our transport system. We have also exerted influence over our business partners in the transport sector, for example, franchised bus, public light bus and taxi operators, to encourage them to join us in pursuing the wide range of measures aimed at protecting the environment.

We will continue to strive for achievement of our Departmental Vision, viz. *“we will provide the world’s best transport system which is safe, reliable, efficient, **environmentally friendly** and satisfying to both users and operators”*. In this issue of our Environmental Report we aim to advise the readers what have been done in 2018 by or through the Transport Department to improve the quality of our living environment.



## ***ABOUT THIS REPORT***

This Environmental Report covers the period from 1 January 2018 to 31 December 2018. It is published in electronic version on our web site for the sake of reducing paper consumption. Its target readers are members of the general public. The readers will be informed of the business of our Department, the efforts we have made and the measures we have taken to protect the environment.

Any suggestions or comments on this report are most welcome and can be sent to [tdenq@td.gov.hk](mailto:tdenq@td.gov.hk).



## ***ABOUT TRANSPORT DEPARTMENT***

Our Department is responsible for the implementation of the Government's transport policy under the following 5 programme areas:

- (i) Planning and Development;
- (ii) Licensing of Vehicles and Drivers;
- (iii) District Traffic and Transport Services;
- (iv) Management of Transport Services; and
- (v) Transport Services for People with Disabilities.

Our headquarters are located in the Immigration Tower in Wan Chai. We also have some 22 sub-offices accommodated in other government offices or private commercial buildings. As at 31 December 2018, we had an establishment of 32 directorate posts and 1,710 non-directorate posts. In our daily business, we manage or operate the following main types of facilities:

- (i) public transport interchanges/termini;
- (ii) vehicle inspection centres;
- (iii) driving test centres;
- (iv) traffic lights;
- (v) escalators;
- (vi) CCTV and variable message signs;
- (vii) intelligent transport systems; and
- (viii) roads and pedestrian facilities.



Besides other government departments, our business partners include the operators of franchised and non-franchised buses, tram, taxi, ferry and public light buses. We also run maintenance, operation and management contracts with the various tunnel and Government carpark operators.



## ***ENVIRONMENTAL GOAL***

Our environmental goal is to provide an environmentally friendly transport system in Hong Kong.



## ***ENVIRONMENTAL POLICY***

We are committed to providing a transport system in an environmentally acceptable manner to align with the sustainable development of Hong Kong.

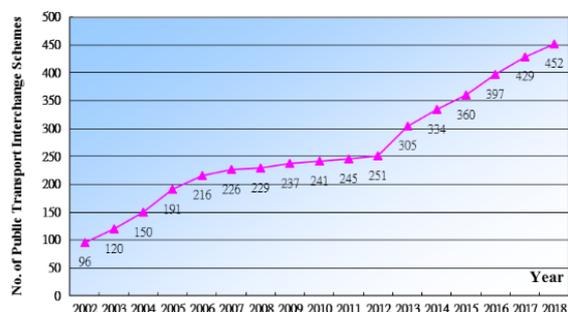
## ***ENVIRONMENTAL OBJECTIVES***

### **Environmental Objective No. 1 - Reduction in Vehicular Traffic**

In managing the public transport system, we coordinate the roles played by the various public transport modes, including the rail, bus, tram, public light bus, taxi, ferry etc., so as to achieve the highest possible overall efficiency. This includes rationalizing public transport services to improve accessibility whilst avoiding duplication and raising the level of service to improve attractiveness. In the end, it helps to reduce vehicular traffic and mitigate air pollution. With these benefits in mind, we make our best efforts to enhance the efficiency of the transport system in the following ways:

#### **(i) Implementation of public transport interchange schemes**

The introduction of interchange schemes enables passengers to make the most efficient use of the transport system across different modes. They include bus-rail interchange, green minibus-rail interchange, taxi-rail interchange, green minibus-bus interchange, tramway-bus interchange and bus-bus interchange schemes. The numbers of bus-bus interchange schemes implemented since 2002 are shown in the graph on the right.

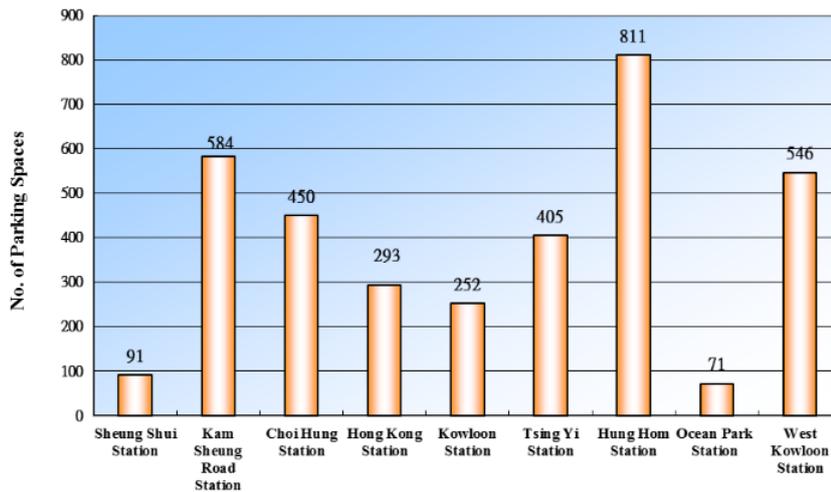


**(ii) Rationalization of bus routes and stops**

This process includes amalgamation, truncation and modification of bus routes, re-location of bus stops and adjustment of bus schedules to match the prevailing passenger demands. The resulting arrangements can help to reduce traffic congestion. Between 2010 and 2018, the cumulative reduction of the number of bus trips in the busy corridors in Central, Causeway Bay and Yau Tsim Mong was 5,235.

**(iii) Provision of park-and-ride (PnR) facilities**

These facilities are carpark provided near railway stations. People can shorten their private car trips and switch to the rail for the major part of their journeys. The numbers of parking spaces provided in some PnR facilities are shown in the graph below.



**(iv) Provision of bicycle parking spaces**

In the New Territories, we monitor the demand for bicycle parking spaces, and make provisions close to railway stations to enable bicycle riders to change to the rail and other public transport. There were a total of about 18,427 bicycle parking spaces provided close to railway stations and public transport interchanges, out of a total of about 38,779 bicycle parking spaces managed by our Department in Hong Kong.



## **Environmental Objective No. 2 - Vehicle Emission Control Measures**

### **(i) Improvement measures for franchised buses**

The Government has fully subsidised the franchised bus companies (FBCs) to retrofit 1,030 eligible Euro II and III franchised buses with selective catalytic reduction devices (SCRs) to reduce their emissions, thereby upgrading their emission performance to that of Euro IV or above level.



In the 2018-19 Policy Address, the Government has announced the subsidies of FBCs in conducting a trial on retrofitting Euro IV and Euro V franchised buses with enhanced selective catalytic reduction systems to reduce their nitrogen oxides emissions.

### **(ii) Tightening vehicle emission standards for motor vehicles**

All motor vehicles seeking first registration in Hong Kong must comply with the statutory vehicle emission standards. The vehicle emission standards for first registered vehicles (except for diesel private cars, buses with a design weight of not more than 9 tonnes, light buses with a design weight of more than 3.5



tonnes, motorcycles and tricycles) have been tightened in phases according to vehicle class from Euro V to Euro VI starting from 1 July 2017. The emission standards for first registered diesel private cars have also been tightened from California LEV II to LEV III starting from 1 October 2017.

### **(iii) All private cars, taxis, light buses, goods vehicles, buses and special purpose vehicles**

We require them to pass smoke or emission tests during their annual inspection. We also select about 5% of the diesel vehicles per day to undergo the dynamometer smoke test at the Kowloon Bay Vehicle Examination Centre.



Smoke Test

We have been implementing a series of measures to reduce vehicle emissions so as to better protect public health. Key measures include:

- launched an incentive-cum-regulatory scheme to progressively phase out some 82,000 pre-Euro IV diesel commercial vehicles (DCV) by the end of 2019;
- completed retrofitting some 1,000 Euro II and Euro III diesel franchised buses with selective catalytic reduction devices by the end of 2017 to upgrade their emission performance to Euro IV or above level;
- tightened the statutory vehicle emission standards for newly registered vehicles to Euro VI in phases by vehicle classes from July 2017;
- strengthened the emission control for liquefied petroleum gas and petrol vehicles using remote sensing equipment since September 2014; and
- limited the service life of DCVs newly registered on or after 1 February 2014 to 15 years.

With the emission control measures on vehicles in recent years, roadside concentrations of key air pollutants have decreased by about 30% from 2013 to 2018.

Further, we encourage the franchised bus operators to deploy Euro IV or above buses to operate along busy corridors such as Yee Wo Street, Hennessy Road, Queensway, Des Voeux Road Central and Nathan Road.

### **Environmental Objective No.3 - Use of Alternative Fuel Vehicles to replace Diesel Vehicles**

Since February 2001, in response to our appeal, the franchised bus operators have switched the fuel of all franchised buses to ultra low sulphur diesel, which can reduce particulate emission by 5 to 10%. Euro V diesel was introduced on 1 December 2007 and replaced Ultra Low Sulphur Diesel since then.

Besides, we took part jointly with other Government departments in the promotion of “cleaner” fuel such as liquefied petroleum gas (LPG) or electricity in place of diesel. Our efforts include the implementation of the following:

**(i) Conversion of diesel taxis to LPG taxis and introduction of alternate fuel**

As at end of 2018, about 99% (i.e. 18,159 Nos.) of the taxis were LPG taxis. Hybrid taxis and electric taxis have started serving Hong Kong since 2013.



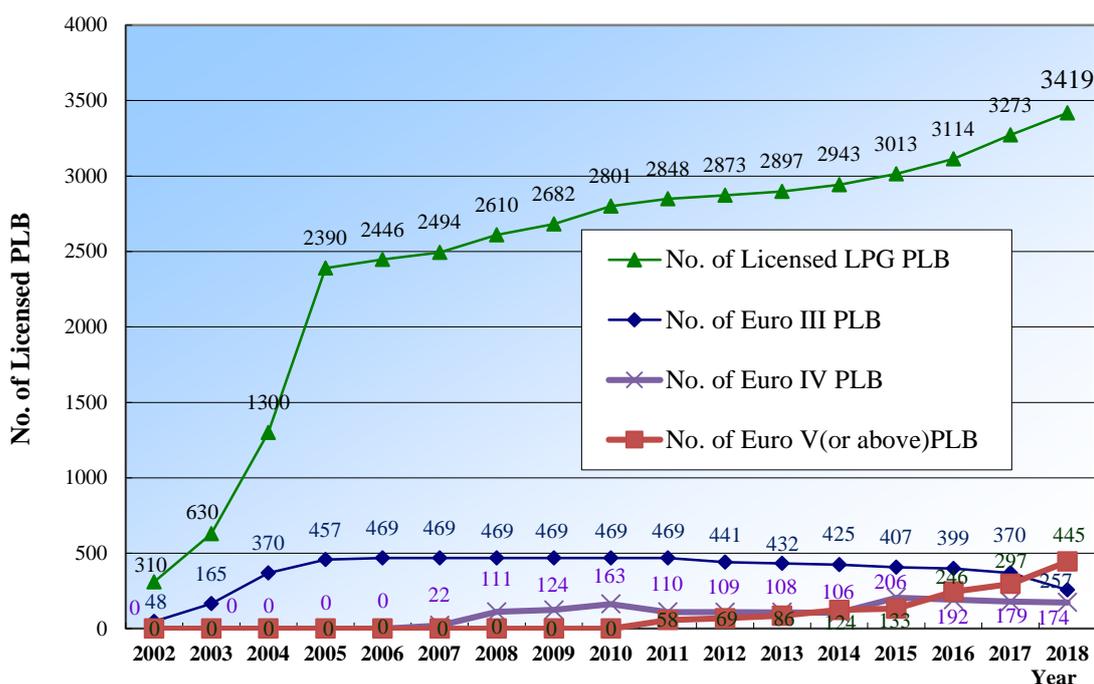
**(ii) Set-up of LPG Refilling Stations**

We work jointly with other departments to facilitate the setting up of LPG refilling stations at convenient locations. Up to end 2018, there were a total of 68 LPG refilling stations in Hong Kong.

**(iii) Incentive scheme for phasing out Pre-Euro IV diesel Public Light Buses**

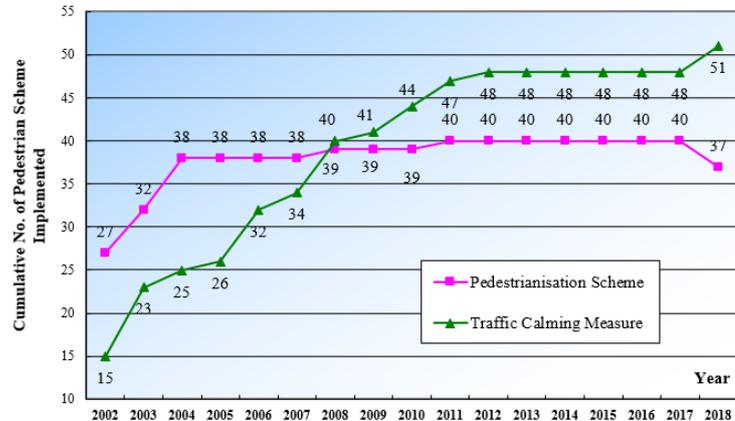
In March 2014, the Administration launched an ex-gratia payment scheme to phase out Pre-Euro IV diesel public light buses (PLBs). Eligible PLB owners can use the ex-gratia payment for buying new vehicles.

As at end 2018, there were 3,419 licensed LPG PLBs, 257 licensed Euro III diesel PLBs, 174 licensed Euro IV diesel PLBs, and 445 Euro V or above diesel PLBs. The numbers of licensed LPG PLB, Euro III, IV and V (or above) diesel PLBs since 2002 are shown in the graph below



## Environmental Objective No. 4 - Pedestrian & Traffic Calming Schemes

These schemes have been recognized by the public since we first introduced them to busy areas like Causeway Bay in 2000. The cumulative numbers of pedestrian schemes implemented since 2002 are shown in the graph on the right.



Traffic Calming Street: Jaffe Road (near O'Brien Road)

## Environmental Objective No. 5 - Enhancing Walkability

### *Foster "Walk in HK"*

The Government will continue to promote "Walk in HK" with the aim to encourage people to walk the "first mile" to and "last mile" from public transport. Promoting walkability is not only a key element in the Government's effort to combat climate change, but will also help encourage a healthy lifestyle, strengthen community interaction and build an age-friendly environment. The Government will consolidate the past efforts in promoting walkability and foster the concept of "Walk in HK" under a coordinated strategy. To this end, we are taking forward the "Consultancy Study on Enhancing Walkability in Hong Kong" with an objective to formulating planning and design standards putting priority on pedestrians and developing Hong Kong into a walkable city. Two pilot areas, namely Central and Sham Shui Po, have been selected to test out new initiatives for an enhanced and comfortable walking environment. We will implement the measures for building a pedestrian-friendly environment following

the four study themes, namely “Make it smart”, “Make it connected”, “Make it enjoyable” and “Make it safe”.

**(i) “Make it smart”**

We will “make it smart” by providing user-friendly information on walking routes. We launched a pilot pedestrian wayfinding signage system in Tsim Sha Tsui in July 2018, with reference to overseas experiences, providing clear and pedestrian-friendly walking maps and directional signage to enhance information dissemination on larger scale pedestrian networks. We will continue to enhance the pedestrian wayfinding system having regard to the experience gained from the pilot system.

**(ii) “Make it connected”**

To “make it connected” by enhancing the pedestrian networks, we will continue to take forward another study to explore the enhancement of the existing pedestrian network to provide a continuous east-west walkway from Wan Chai to Sheung Wan and to link up the Sun Yat Sen Memorial Park in Sai Ying Pun with the existing footbridges in Central. We will also explore means to enhance accessibility of the adjoining pedestrian networks so that at-grade footways, footbridges and subways will be joined up in a coherent manner. Moreover, the Government will continue taking forward the various hillside escalator links and elevator systems (HEL) projects, and we are taking forward a study to review the assessment mechanism established by the Government in 2009 for HEL proposals, and on the basis of the revised mechanism, conduct assessment of new HEL proposals received in the past years; and carry out initial screening and detailed scoring for proposals that are within the scope of HEL so as to set priorities and decide on the first batch of HEL proposals for implementation.

**(iii) “Make it enjoyable”**

We will “make it enjoyable” by making walking a pleasant experience. We will explore relaxing the requirements for adding covers to public walkways as stipulated in the Transport Planning & Design Manual, and have selected Central and Sham Shui Po as two pilot areas to test out new initiatives for a comfortable walking environment.

**(iv) “Make it safe”**

We will “make it safe” by providing a safe and quality pedestrian environment. We will review and update the relevant planning standards and design in relation to pedestrian environment and facilities. Examples include widths of footway and buffer zones, pedestrian crossing facilities, traffic calming street design, and road side facilities such as railings, and street furniture.

We will continue to work towards the aim of enhancing the walkability of our city for Hong Kong people to commute, to connect and to enjoy, making walking an integral part of Hong Kong as a sustainable city.

### **Environmental Objective No. 6 - Efficient Use of Road Space through Application of Advanced Technologies**

We aim to reduce the journey times of motorists, and hence the consumption of vehicle fuel and emission of air pollutants from vehicles, through the enhancement of the efficiency of the transport network by promoting the application of intelligent transport systems in the following aspects:

#### **(i) Provision of Transport Information through Internet and Mobile Applications**

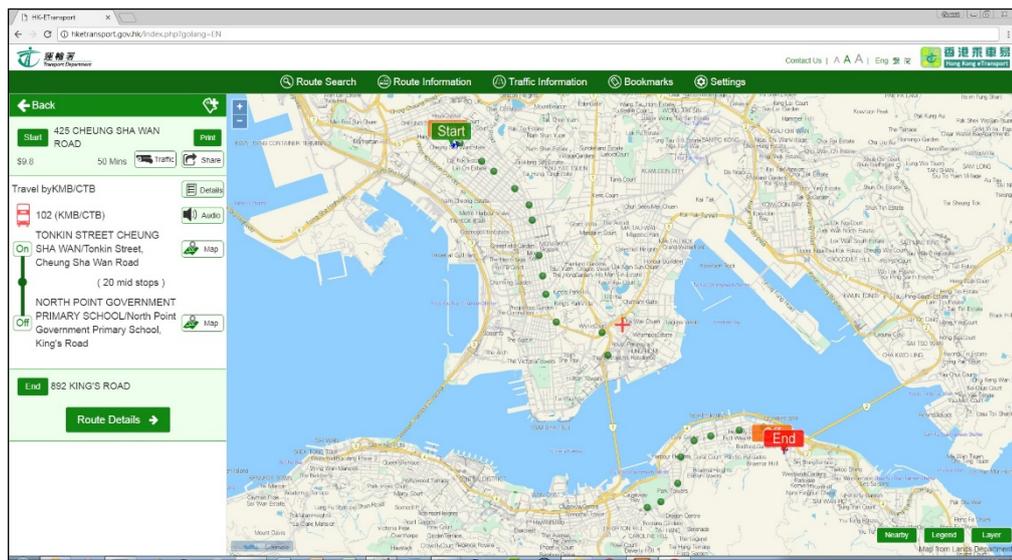
We have been providing traffic and transport information through the Internet on our Homepage for the motorists and passengers to plan their journeys and make better use of the road network and public transport services.

We launched the Road Traffic Information Service (RTIS) website in February 2009. The service integrated the dissemination of 4 types of real-time traffic information by a single website, namely the Special Traffic News, the CCTV snapshots of traffic condition, the cross-harbour journey time between Hong Kong Island and Kowloon, and the traffic speed map, for road users to better choose their transport mode and plan their journeys. To enable road users using the service at any time and place that is convenient to them, we launched the mobile version of the service in May 2010. Since March 2011, we have been disseminating the above-mentioned real-time traffic information via the DATA.GOV.HK website of GovHK. Private companies have developed mobile applications using the traffic data of DATA.GOV.HK for the public.



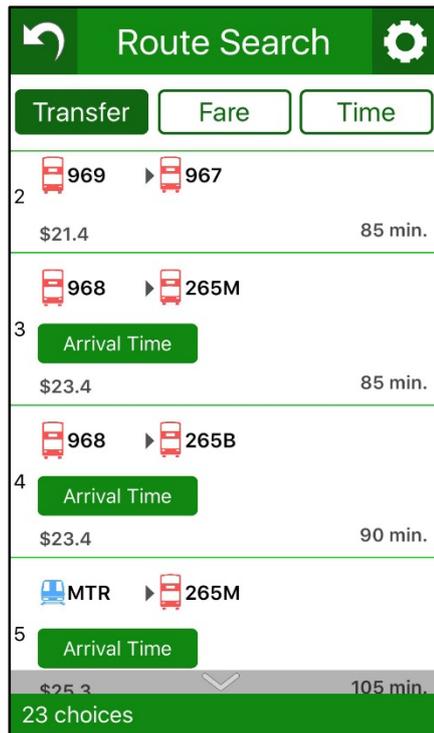
### Road Traffic Information Service

To enable commuters to make better use of the public transport services, we launched Hong Kong eTransport in April 2009. It is a free one-stop multi-modal public transport route search system with map information and traffic information<sup>1</sup> available to the public on the Internet. We launched the mobile application and mobile web version in 2011. In Oct 2017, we launched the "Walking Route Search" function for Causeway Bay under Hong Kong eTransport, facilitating users' search of walking path and promoting walk as an environmental friendly means for commuting.



### Hong Kong eTransport website version

<sup>1</sup> Traffic information includes Special Traffic News, Special Traffic and Transport Arrangement, Traffic Snapshot, Traffic Webcast, Cross-harbour Journey Time and Traffic Speed Map information.



Hong Kong eTransport  
mobile application



Hong Kong eRouting  
mobile application

We launched Hong Kong eRouting website and mobile application in 2010 and 2011 to provide motorists driving route search with shortest distance, shortest time and lowest toll as well as real time traffic information for pre-trip planning. In July 2018, we launched an integrated mobile application "HKeMobility" to replace TD's 3 previous mobile applications, viz. "Hong Kong eRouting", "Hong Kong eTransport" and "eTraffic News", and to provide citizens more convenient and quicker one-stop public transport and driving route search function, estimated travelling time and fares, real time traffic incident information, enabling users to plan for the most appropriate travel arrangements. As at end 2018, the accumulated no. of download of "HKeMobility" is over 1.94 million and the average daily hit rate is about 25,000 (Jul 2018 to Dec 2018).



HKeMobility Mobile Application

**(ii) Dissemination of Real-time Traffic Information on Roads**

To enhance smooth traffic flow and alleviate traffic congestion, we provide efficient traffic monitoring and incident management by installation of traffic control and surveillance (TCS) facilities in tunnels and Tsing Ma Control Area, Tsing Sha Control Area, Kong Sham Western Highway, Tuen Mun Road, Tolo Highway and Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road. Real-time traffic information is provided to motorists via the TCS facilities, such as variable message signs, lane control signals, etc.



Journey Time Indication System

To facilitate the public to plan their journeys and select suitable routes or transport modes, we provide Journey Time Indication System (JTIS) at major divergent points towards the three cross-harbour tunnels to show the journey times from the specific divergent points to the exit portals of various cross-harbour tunnels.

We also provide Speed Map Panels (SMP) at critical divergent points of strategic routes in the New Territories to show the real-time traffic conditions on the roads ahead towards Kowloon. There are currently 10 sets of JTIS and 5 sets of SMP in Hong Kong. We are planning to install additional 19 sets of JTIS before the critical divergent points at major roads over the territory and

enhance an existing SMP at San Tin Highway near Fairview Park, with the works scheduled for completion by end 2020.



Speed Map Panel

We have developed a Traffic and Incident Management System (TIMS) to enhance the efficiency and effectiveness in managing traffic and transport incidents and in disseminating traffic and transport information to the public. The TIMS was commissioned in 2017. With the benefit of more real-time traffic information, motorists can better plan their journeys ahead to avoid traffic congestion, thus effectively reducing their journey times.

Since March 2011, we have been disseminating real-time traffic data for free download and value-added re-use by the public through DATA.GOV.HK. We are arranging the installation of about 1200 traffic detectors on strategic routes and major roads by end 2020 to enhance the coverage of real-time traffic information.

**(iii) Expansion and Operation of Area Traffic Control (ATC) Systems**

In view of the significant benefits of the Area Traffic Control (ATC) system in optimising the utilisation of road capacity, minimising traffic delay and reducing vehicle emissions, we have expanded the system in phases to cover majority of the districts. Out of the 1,911 road junctions operating with traffic signals in the territory, 1,873 are under the control of ATC system. With the greater coverage of the ATC system, overall traffic delay at intersections is minimised and journey time of road users is reduced. Due to better coordination of traffic signals resulting in less stop and start activities, fuel consumption and emissions of vehicles are also reduced.



**Environmental Objective No. 7 - Saving Electricity and Maintaining Good Indoor Air Quality at our Facilities**

***Saving Electricity at our Facilities***

Our facilities that have major consumption of electricity are broadly divided into 3 categories for the sake of formulating our electricity saving measures:

**(i) Category 1 including all our offices, vehicle inspection centres, and driving test centres**

We adopt green office management to reduce electricity consumption in this category of facilities.



**Kowloon Bay Vehicle Examination Centre**

- (ii) **Category 2 including traffic lights, CCTV, variable message signs, intelligent transport systems and journey time indication systems, etc, that are in operation round the clock for the purpose of regulating and monitoring road traffic**

To reduce power consumption, light emitting diode (LED) lights are adopted in this category of road traffic facilities.



- (iii) **Category 3 including escalators and public transport interchanges/terminus that serve pedestrians and public transport passengers**

There is room for energy-saving but we have to strike a balance between the saving of electricity and the service to the public. The measures adopted to reduce electricity consumption by the facilities in this category include the following:



- escalators are turned off at the end of the operating period
- the ventilation and part of the lighting of the public transport interchanges/termini are turned off as soon as the public transport services cease every night
- lighting of low power consumption rating is used
- the ventilation systems are properly maintained to work efficiently in respect of power consumption

The situation of electricity consumption of the above category 1<sup>2</sup> and 3 facilities since 2008 is shown in the following table:

Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<b>Electricity consumed (kWh)</b>	3,469,056	3,394,615	3,326,832	3,186,493	2,986,255	2,652,430	2,776,030	2,716,586	2,787,039	3,037,216	2,725,799

### *Maintaining Good Indoor Air Quality at our Facilities*

In 2003, EPD launched the Indoor Air Quality (IAQ) Certification Scheme to promote and commend good IAQ management practice.

The following eligible premises of TD have joined the IAQ Certification Scheme and obtained a “Good” class of indoor air quality:

1. North District Government Offices, 3 Pik Fung Road, Fanling, New Territories
2. Eastern Law Courts Building, 29 Tai On Street, Sai Wan Ho, Hong Kong
3. Harcourt House, 39 Gloucester Road, Wan Chai, Hong Kong
4. Harbour Building, 38 Pier Road, Central, Hong Kong
5. Immigration Tower, 7 Gloucester Road, Wan Chai, Hong Kong
6. Queensway Government Offices, 66 Queensway, Hong Kong
7. Cheung Sha Wan Government Offices, 303 Cheung Sha Wan Road, Cheung Sha Wan, Kowloon
8. China Resources Building, 26 Harbour Road, Wanchai, Hong Kong
9. Mong Kok Government Offices, Kowloon, 30 Luen Wan Street, Mong Kok, Kowloon
10. Sha Tin Government Offices, 1 Sheung Wo Che Road, Shatin, New Territories
11. Kowloon East Government Offices, 12 Lei Yue Mun Road, Kwun Tong, Kowloon
12. Hopewell Centre, 183 Queen's Road East, Wanchai, Hong Kong
13. Rumsey Street Multi-Storey Car Park Building, 2 Rumsey Street, Sheung Wan, Hong Kong
14. Kowloon Government Offices, 405 Nathan Road, Kowloon

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<sup>2</sup> Excluding electricity consumption in joint-user government buildings which are reported by the Government Property Agency

15. Cross Harbour Tunnel Administration Building, Cross Harbour Tunnel, Hung Hom, Kowloon
16. Tate's Cairn Tunnel Administration Building, Siu Lek Yuen Road, Shatin, New Territories



## **Environmental Objective No. 8 - Green Office Management**

We always keep abreast of the green practices recommended by the Environmental Protection Department and Electrical & Mechanical Services Department and introduce them to our offices whenever appropriate. Our aim is to reduce paper and electricity consumption as far as possible and to use recycled materials as much as possible. The latest green office practices adopted by us are summarized below.

### *Paper-reduction Measures*

- Sharing documents via the Local Area Network and the Internet by uploading reports, circulars and other documents on the Transport Department Intranet and Internet website
- Using e-mails and e-memos within the department and, as far as practicable, when communicating with other departments and the public
- Reducing the font size of the letters and characters, and the line spacing for drafting, and preview of documents before final print
- Issuing tender documents in electronic format
- Printing and photocopying on both sides of paper and on used paper
- Re-using envelopes and loose-minute jackets
- Sending unclassified documents without using envelopes



- Sending electronic seasonal greeting cards
- Sending no originals when these are sent by fax
- Using no covering sheets when documents are faxed
- Using CD-ROM to carry departmental publications and consultancy study reports instead of hard copies
- Monitoring the quantity of paper consumed quarterly
- Adopting e-Filing system where appropriate

The situation of paper consumption since 2007 is shown in the following table:

Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<b>A4 Paper equivalent (reams)</b>	27,785	25,573	26,682	27,477	29,464	28,426	28,732	28,804	32,615	28,731	30,982	<b>34,076</b>

#### *Energy-saving Measures*

- Monitoring and promoting energy-saving measures (e.g. switching off air-conditioning units, computers, etc.) by designated staff
- Setting the air conditioning temperature to 25.5°C in the summer months
- Reminding all staff to switch off lights when not in office
- Turning off unnecessary lighting when the area is not in use and affixing “Save Energy” stickers near switches to remind staff to save energy
- Turning off some air-conditioning units when the occupancy is low (e.g. after normal office-hours)
- Reminding all staff to set all computers and office equipment to energy-saving mode during office hours and to turn them off after use
- Replacing CRT monitors with more energy-efficient LCD monitors
- Adopting an open plan office concept through the use of half-glass walls to allow light to pass through when designing the layout of a new office
- Using T8 fluorescent lamps to replace T10 fluorescent lamps for energy saving
- Promoting walking up and down the floors instead of using lifts



### *Recycling Measures*

- Providing green boxes for the collection of waste paper and arranging with recyclers to collect waste paper for recycling
- Collecting used printer toner cartridges for recycling
- Promoting the use of recycled paper
- Collecting used CD-ROM discs for recycling

### *Other Measures*

- Practising no-smoking policy within all our offices



## **Environmental Objective No. 9 - Staff Awareness**

We strive to develop a green culture within the Department and make all staff environmentally conscious. To this end we upload reports on overseas training or duty visit related to green transport and environmental sustainability to our intranet for knowledge sharing among colleagues in the Department.

## ENVIRONMENTAL ACHIEVEMENTS IN 2018

The progress/achievements versus the targets for 2018 are summarized in the following table.

Objectives	2017 Targets	Progress & Achievements
Reduction in Vehicular Traffic	<ul style="list-style-type: none"> <li>(i) To continue the existing bus-rail interchange schemes</li> <li>(ii) To continue the existing GMB-rail interchange schemes</li> <li>(iii) To continue the existing taxi-rail interchange schemes at the Airport</li> <li>(iv) To rationalize more bus routes in busy area and on busy road</li> </ul>	<ul style="list-style-type: none"> <li>(i) Passengers travelling on MTR Tung Chung Line were offered \$1 fare discount for interchanging with New Lantau Bus (NLB) routes 37, 37H, 37P, 37M, 38, 38X and N38 at Tung Chung Station or vice versa. Passengers travelling on MTR Disneyland Resort Line or Tung Chung Line were offered \$1 fare discount for interchanging with CTB route B5 at Disneyland Resort or Sunny Bay Stations or vice versa. Besides, passengers can also enjoy free interchange on MTR feeder bus routes K12, K14, K17 and K18 which are operated by KMB at Tai Po Market Station or vice versa. (Remark: MTRCL offers free transfer on MTR bus routes for West Rail Line and Light Rail passengers in North-west Transit Service Area at the moment.)</li> <li>(ii) Passengers are offered \$0.3 to \$3.0 fare discount for interchanging between over 500 GMB routes and MTR.</li> <li>(iii) Taxi passengers enjoy a 50 % fare discount by using an Octopus card on the Airport Express Line by presenting</li> </ul>

Objectives	2017 Targets	Progress & Achievements
		<p>a taxi receipt of amount not less than \$40 on the same day at Kowloon or Tsing Yi Stations.</p> <p>(iv) Between 2010 and 2018, the cumulative reduction of the number of bus trips in the busy corridors in Central, Causeway Bay and Yau Tsim Mong was 5,235.</p>
Tightening of Vehicle Emission Standards for First Registered Vehicles	(i) Implement Euro VI vehicle emission standards for first registered vehicles in phases according to vehicle class.	(i) The emission standards for first registered vehicles (except for diesel private cars, buses with a design weight of not more than 9 tonnes, light buses with a design weight of more than 3.5 tonnes, motorcycles and tricycles) have been tightened to Euro VI in phases starting from 1 July 2017. The emission standards for first registered diesel private cars have also been tightened to California LEV III starting from 1 October 2017.
Use of Alternative Fuel Vehicles to Replace Old Diesel Vehicles	(i) To continue to encourage more owners to have their old diesel PLBs converted to LPG, Euro V or above diesel or electric ones	(i) The administration launched an ex-gratia payment scheme in March 2014 for phasing out Pre Euro IV diesel commercial vehicles including PLBs till end 2019. After scrapping the vehicles, the owners can use the ex-gratia payment to buy new vehicles. The number of licensed LPG PLBs increased from 3,273 in 2017 to 3,419 in 2018. As at end 2018, there were

Objectives	2017 Targets	Progress & Achievements
		<p>3,419 licensed LPG, 257 licensed Euro III, 174 licensed Euro IV and 445 licensed Euro V or above PLBs.</p> <p>(ii) The Administration limited the service life of diesel commercial vehicles newly registered on or after 1 February 2014 at 15 years.</p>
Pedestrian Schemes	(i) To explore opportunities for the implementation of traffic calming schemes to meet public needs	(i) The works of the traffic calming scheme at Woosung Street was completed.
Enhancing Walkability	<p>(i) To continue strategic study on “Enhancing walkability in Hong Kong”.</p> <p>(ii) To select two Pilot Areas to test out innovative standards for an enhanced and comfortable walking environment</p>	<p>(i) Target achieved and the study to continue in 2019.</p> <p>(ii) Selected Sham Shui Po and Central as two Pilot Areas.</p>
Efficient Use of Road Space through Application of Advanced Technologies	<p>(i) To continue the collection and dissemination of real-time traffic information to the public</p> <p>(ii) To continue the provision of Hong Kong eRouting and Hong Kong eTransport Services.</p> <p>(iii) To develop an integrated transport mobile application "HKeMobility" for launching by 2018</p> <p>(iv) To continue the dissemination of real-time</p>	<p>(i) Target achieved, real-time traffic information collection and dissemination to be continued in 2019.</p> <p>(ii) Target achieved, provision of services to be continued in 2019.</p> <p>(iii) Target achieved, HKeMobility was launched in July 2018. Provision of service to be continued in 2019.</p> <p>(iv) Target achieved, dissemination of real-time traffic data to be continued in 2019</p>

Objectives	2017 Targets	Progress & Achievements
	<p>traffic data for free download and value-added re-use by the public through DATA.GOV.HK</p> <p>(v) To operate, maintain and enhance the Traffic and Incident Management System</p> <p>(vi) To conduct survey to gauge the performance of Area Traffic Control Systems and identify improvements if appropriate</p> <p>(vii) To plan for the installation of additional traffic detectors, Speed Map Panels and Journey Time Indication Systems</p>	<p>(v) Target achieved.</p> <p>(vi) Car journey time surveys were conducted in the 4<sup>th</sup> quarter and local improvements had been carried out if necessary.</p> <p>(vii) The contract for the installation of first phase traffic detectors commenced in June 2018. The tender for the installation contract of second phase traffic detectors, additional Journey Time Indication Systems and Speed Map Panel was invited in October 2018.</p>
Saving Electricity and Maintaining Good Indoor Air Quality at our facilities	<p>(i) To contain the electricity consumption of our non-office facilities to the level of 2017 as far as possible.</p> <p>(ii) To contain the electricity consumption of our office facilities<sup>3</sup> to the level of 2013 as far as possible.</p> <p>(iii) To maintain a “Good” class of indoor air quality at our premises eligible to join the IAQ Certification Scheme.</p>	<p>(i) Electricity consumption of our non-office facilities in 2018 was 1.41 million kWh, an increase of 0.9% as compared with the consumption in 2017.</p> <p>(ii) Electricity consumption of our office facilities in 2018 was 1.62 million kWh, an increase of 26.7% as compared with the baseline level.</p> <p>(iii) Target achieved.</p>

<sup>3</sup> Excluding electricity consumption in joint-user government buildings which are reported by the Government Property Agency.

Objectives	2017 Targets	Progress & Achievements
Green Office Management	<ul style="list-style-type: none"> <li>(i) To continue with the green office management practices</li> <li>(ii) To contain the paper consumption to the level of 2018</li> <li>(iii) To maintain the use of recycle paper to 30% or above of paper consumption</li> </ul>	<ul style="list-style-type: none"> <li>(i) Target achieved, green office management practices to be continued.</li> <li>(ii) Paper consumption in 2018 has increased by 7.8% as compared to the consumption in 2017.</li> <li>(iii) Recycle paper contributes 82% of total paper consumption.</li> </ul>
Staff Awareness	<ul style="list-style-type: none"> <li>(i) To enhance staff awareness in related aspects through training and promotional events.</li> </ul>	<ul style="list-style-type: none"> <li>(i) Overseas training / duty visit reports related to green transport and environmental sustainability were uploaded to intranet for knowledge sharing among TD colleagues.</li> </ul>

## OUR 2018 OBJECTIVES & TARGETS

Objectives	Targets
Reduction in Vehicular Traffic	<ul style="list-style-type: none"> <li>(i) To continue the existing bus-rail interchange schemes</li> <li>(ii) To continue the existing GMB-rail interchange schemes</li> <li>(iii) To continue the existing taxi-rail interchange schemes at the Airport</li> <li>(iv) To rationalize more bus routes in busy area and on busy road</li> </ul>
Tightening of Vehicle Emission Standards for First Registered Vehicles	<ul style="list-style-type: none"> <li>(i) Implement Euro VI emission standards for first registered vehicles in phases according to vehicle class.</li> </ul>
Use of Alternative Fuel Vehicles to Replace Old Diesel Vehicles	<ul style="list-style-type: none"> <li>(i) To continue to encourage more owners to have their diesel Public Light Buses converted to LPG, Euro V or above, or electric ones</li> </ul>
Pedestrian Schemes	<ul style="list-style-type: none"> <li>(i) To explore opportunities for the implementation of traffic calming schemes to meet public needs</li> </ul>
Enhancing Walkability	<ul style="list-style-type: none"> <li>(i) To continue the study on “Enhancing walkability in Hong Kong”.</li> <li>(ii) To recommend conceptual pedestrian plans in the two Pilot Areas for an enhanced and comfortable walking environment</li> </ul>
Efficient Use of Road Space through Application of Advanced Technologies	<ul style="list-style-type: none"> <li>(i) To continue the collection and dissemination of real-time traffic information to the public</li> <li>(ii) To continue the provision of HKeMobility, Hong Kong eRouting and Hong Kong eTransport Services</li> <li>(iii) To continue the dissemination of real-time traffic data through DATA.GOV.HK for free download and value-added re-use by the public</li> <li>(iv) To operate, maintain and enhance the</li> </ul>

Objectives	Targets
	<p>Traffic and Incident Management System</p> <p>(v) To conduct survey to gauge the performance of Area Traffic Control Systems and identify improvements if appropriate</p> <p>(vi) To continue the installation of additional traffic detectors, Journey Time Indication Systems and Speed Map Panel</p>
Saving Electricity and Maintaining Good Indoor Air Quality at our Facilities	<p>(i) To contain the electricity consumption of our non-office facilities to the level of 2018 as far as possible</p> <p>(ii) To contain the electricity consumption of our office facilities to the level of 2013 as far as possible</p> <p>(iii) To maintain a “Good” class of indoor air quality at our premises eligible to join the IAQ Certification Scheme.</p>
Green Office Management	<p>(i) To continue with the green office management practices</p> <p>(ii) To contain the paper consumption to the level of 2018</p> <p>(iii) To maintain the use of recycle paper to 30% or above of paper consumption</p>
Staff Awareness	<p>(i) To enhance staff awareness in related aspects through training and promotional events.</p>