



Clean Air Charter

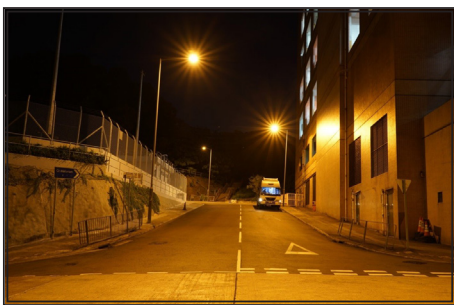
We are committed to improving air quality for the implementation of the principles and spirit of the Clean Air Charter.

Energy Saving in Public Lighting

For environmental protection, we have been implementing various measures to further enhance the energy efficiency of public lighting in Hong Kong. In 2017, we launched a large scale Light Emitting Diode (LED) replacement programme to phase out totally 39,500 sets of conventional road lights, directional signs and gantry signs lights as well as fluorescent tubes at subways. After completion of the replacement programme in 2024, it is expected that around 7.6 million kWh of electricity consumption will be saved each year, corresponding to a reduction of 5,400 tonnes of greenhouse gas emissions.

In 2017, we continued to enhance the operational efficiency of public lighting. As compared to 2016, despite an increase of about 2,600 lighting points (1.17%) in public lighting in 2017, the corresponding annual electricity consumption dropped by 1.42%.

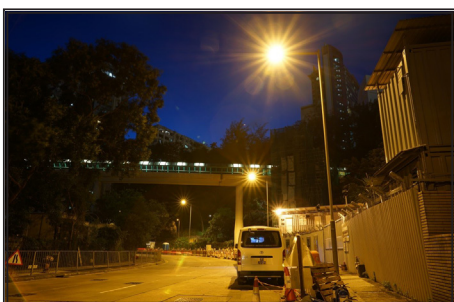
Color rendering of conventional High Pressure Sodium Light is low and the surrounding objects will become yellowish. With LED lights' high color rendering, actual color of surrounding objects can be revealed.



Wing Hau Street - Before replacement of conventional High Pressure Sodium Lights



Wing Hau Street - After replacement by LED Lights



Kwai Hei Street - Before replacement of conventional High Pressure Sodium Lights



Kwai Hei Street - After replacement by LED Lights

Energy Saving in Office

Electricity consumption in 2017 with corresponding indirect gas emission figures:

Offices ¹	Electricity(kWh) [comparison with 2016]	Indirect gas emissions (kg)		
		SO ₂	NO _x	RSP
Ho Man Tin Government Offices	969,080 [↓1.05%]	1,850.94	1,124.13	58.14
North Point Government Offices	179,656 [↑1.07%]	343.14	208.40	10.78
Trade and Industry Tower	639,097 [↓1.19%]	1,220.68	741.35	38.35
Nan Fung Commercial Centre	421,412 [↓12.86%]	804.90	488.84	25.28
Grand City Plaza	27,339 [↓2.06%]	53.32	32.38	1.67
Cheung Sha Wan Plaza	11,436 [↑1.29%]	21.84	13.27	0.69
MG Tower	23,398 [↑0.95%]	44.69	27.14	1.40

Energy Saving Measures

The following measures have been promulgated to enhance energy saving in offices:

- appoint Energy Wardens in every office/division to monitor the usage of lighting equipment and to keep the illumination level to an acceptable minimum level;
- review the illumination level arising from the change of room use;
- maintain air-conditioning not lower than 25.5°C in hot seasons;
- switch off lights during lunch or when staff are away for long hours;
- switch off computer equipment and electric appliances when not in use;
- encourage the use of staircase for inter-floor traffic;
- use automatic low flow water taps in toilets; and
- monitor the electricity consumption of offices of HyD with individual electricity meters installed.

Contribution to the Air Quality

Environmentally Friendly Vehicles

We have been striving to reduce greenhouse gas emission of vehicles through the use of environmentally friendly vehicles and promulgation of internal guidelines to remind motor drivers of the green driving habits. We have adopted an electrical car which greatly reduced greenhouse gas emission to zero. Together with the earlier introduction of two hybrid vehicles in 2011, the travel distance covered per litre of petrol consumed was 18 km in December 2017,

much better than that of the other vehicles adopting unleaded petrol only. Furthermore, following the procurement of the environmentally friendly vehicles for all saloon type contract vehicles for all new major works contracts, we have also adopted these types of contract cars extensively in our road maintenance term contracts.

Special Measures to Cope With the Air Quality

To increase staff awareness on air quality, we issued email reminders to our staff when the Air Quality Health Index reached or was forecasted to reach the “very high” or “serious” health risk categories. A set of precautionary measures for frontline staff and their supervisors was also attached to the reminders. The guidelines covered assessment of risk of outdoor work for workers performing heavy manual works and measures taken to reduce outdoor physical exertion and time of staying outdoor, especially in areas with heavy traffic.

Indoor Air Quality Certification

The indoor air measurement was conducted by the Electrical and Mechanical Services Department (EMSD) in December 2017. Ho Man Tin Government Offices was awarded the “Good” Class Indoor Air Quality Certificate for 2017. The indoor air quality of Ho Man Tin Government Offices has been fully complied with the “Good” Class of the Indoor Air Quality Objectives since 2003. The indoor air quality of Cheung Sha Wan Government Offices, North Point Government Offices, Nan Fung Commercial Centre and Trade and Industry Tower are being closely monitored and have attained the “Excellent” or “Good” Class.

¹ Only offices of HyD with individual electricity metres installed are included.