



Clean Air Charter

We take every small step to support the clean-air initiatives to reduce air pollution.

Energy Saving in Public Lighting

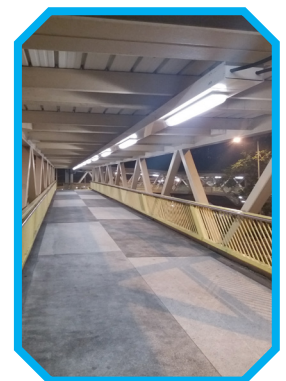
With our continuous efforts in implementing various measures in enhancing the energy efficiency of public lighting, including design revision and operational improvement, we have enjoyed years of decrease in energy consumption, despite a net increase in the number of public lights during the years. However, we have come to a point where the gain in energy efficiency has been diminishing and new ways to keep on the drive have to be pursued. In this regard, we promulgate a large scale replacement of conventional lighting with Light Emitting Diodes (LED) in the coming years as follows:

- Replacement of 25,000 low to medium wattage High Pressure Sodium (HPS/SON) lights for road lights with LED lights in seven years' time;
- Replacement of 4,500 Ceramic Discharge Metal-halide (CDM) flood lights for directional signs and gantry signs with LED linear washer lights in 5 years' time; and
- Replacement of 10,000 T8 fluorescent tubes for subways to LED tubes in seven years' time.

We trust when the replacement scheme is taking shape, the energy efficiency of the public lighting will definitely be further enhanced. After completion of the replacement scheme, it is expected that around 7.6 million kWh of electricity consumption will be saved, corresponding to a reduction of 5,400 tonnes of greenhouse gas emissions.



LED lights to replace T8 fluorescent tubes at subways



LED lights with smart dimming systems at footbridges



Use of LED lights at public transport interchanges



Gantry signs before and after the use of LED linear washer lights

Energy Saving in Office

Electricity consumption in 2016 with corresponding indirect gas emission figures:

Offices ¹	Electricity(kWh) [comparison with 2015]	Indirect gas emissions (kg)		
		SO ₂	NO _x	RSP
HMTGO	979,320 [↓4.69%]	1,870.50	1,136.01	58.76
NPGO	177,756 [↓5.96%]	339.51	206.20	10.67
TI Tower	646,808 ²	1,235.40	750.30	38.81
NFCC	483,620 [↓18.34%]	923.71	561.00	29.02
GCP	27,914 [↓5.14%]	53.32	32.38	1.67
CSWP	11,290 [↓8.80%]	21.56	13.10	0.68
MG Tower	23,177 [↓1.23%]	44.27	26.89	1.39

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 light and to keep the illumination level to the 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 metres 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

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

² Relevant offices were relocated to TI Tower in June 2015. Full-year comparison is thus not applicable.

hybrid vehicles in 2011, the travel distance covered per litre of petrol consumed was 18 km in December 2016, much better than that of the other vehicles adopting unleaded petrol only. Furthermore, following the procurement of the environmentally friendly vehicles approved by the Environmental Protection Department (EPD) for all saloon type contract vehicles for all new major works contracts, we have also started adopting 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 (AQHI) reached or was forecasted to reach the “very high” or “serious” health risk categories. A set of precautionary measures for front-line 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 October 2016. HMTGO was awarded the “Good Class” Indoor Air Quality Certificate for 2016. The indoor air quality of HMTGO has been fully complied with the Good Class of the Indoor Air Quality Objectives since 2003. The indoor air quality of CSWGO, NPGO, NFCC and TI Tower are being closely monitored and have attained the “Excellent” or “Good” Class.