

# SUSTAINABILITY REPORT

## Care for the Environment



Our environment-friendly bus fleets are driving us into a new era.

## ENVIRONMENTAL POLICY

Recognising the potential environmental effect of its services, the Company is committed to mitigating and minimising this impact through the following measures:

- Preventing pollution and improving environmental performance through the establishment and achievement of objectives and targets;
- Conserving resources by reducing waste at source and recycling and reusing resources;
- Minimising and controlling emissions from our buses by implementing control measures and by providing professional bus repair and maintenance services;
- Enhancing staff environmental awareness by providing training in relation to our environmental policy and our environmental objectives and targets, as well as in relation to the potential environmental effects of our operations;
- Communicating our environmental policy and relevant environmental requirements to our contractors and suppliers, and making the policy available to the public;
- Responding to environmental inquiries from external parties promptly and ensuring effective communication on environmental issues internally; and

- Ensuring compliance with all applicable local environmental legislation and other relevant requirements.

## ENVIRONMENTAL BUS DESIGN

We are committed to contributing to a better environment by investing in environment-friendly buses that meet the stringent exhaust emission standards set by the European Council of Environmental Ministers. At the end of 2015, there were 1,634 air-conditioned buses at Euro V standard or above in the KMB and LWB fleets, and a further 621 buses at Euro V standard or above are expected to enter service in 2016.

To minimise emissions, besides renewing the bus fleet with the latest low-emission models, we upgrade older buses by means of different exhaust treatment devices including Diesel Oxidation Catalysts and Diesel Particulate Filters. In addition, 1,582 KMB Euro IV, V and VI buses are equipped with a Selective Catalytic Reduction device, which can tremendously reduce the emission of nitrogen oxides, as the ammonia formed from the urea solution converts nitrogen oxides into nitrogen gas and water vapour. A total of 65 urea solution dispensing units have been installed in the depots at Lai Chi Kok, Tsing Yi, Kowloon Bay, Tseung Kwan O, Tuen Mun, Yuen Long, Tin Shui Wai, Tuen Mun (South), Sha Tin, Sheung Shui and Tai Po.

The Eco-Driveline System, a standard feature on new buses since 2003, reduces exhaust emissions by 6%-10% compared with conventional drivelines by improving fuel economy. At the end of 2015, KMB had improved the emissions of particulate matter and nitrogen oxides by 96.03% and 69.78% respectively compared to 1992.

The entire KMB and LWB fleet use Near Zero Sulphur Diesel ("NZSD"), which contains only 0.001% sulphur. NZSD significantly reduces the emissions of sulphur oxides and particulates, helping towards a cleaner environment.

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Since 2001, KMB has supported the cartridge recycling programme run by Friends of the Earth (HK). In 2015, KMB collected a total of 634 cartridges from printers and fax machines for recycling.

KMB was by the end of 2015 able to meet the Government's requirement to assign low-emission buses to routes passing through the low-emission zones in Central, Causeway Bay and Mong Kok.

To comply with government guidelines in the "Practice Note for Managing Air-Conditioned Public Transport Facilities – Buses", 80 KMB buses from passenger-intensive bus routes are selected each year for data-logger measurement of the carbon dioxide

concentration in the bus saloon to monitor "Indoor Air Quality" in the air-conditioned bus environment.

### TRAINING IN ECO-DRIVING

Our eco-driving training focuses on the skills involved in accelerating, braking and manoeuvring, as well as good practices when parking at the bus terminus. Besides boosting our bus captains' environmental awareness, such training helps reduce fuel consumption along with air and noise pollution.



Tyre retreading brings environmental benefits while extending the life span of a tyre



65 urea solution dispensing units have been installed across KMB's operating area

## GREEN OPERATIONS

### Water Recycling and Waste Water Treatment

70% of the water used each day to clean KMB's buses is treated and recycled, bringing savings in terms of water consumption. Our depots are also fitted with 11 automatic waste water treatment and recycling systems with a treatment capacity of 520 cubic metres per day. Chemicals are added to separate the solid impurities from the waste water produced during daily operations, with the impurities being disposed of at landfills and the treated water discharged into the public drain. We continue to operate a "Save Water" campaign at our depots and headquarters to encourage staff to save water.

### Environmental Treatment of Chemical Waste and Waste Oil

In 2015, around 263,600 kilograms of solid chemical waste were treated and stored by type in designated areas at our bus depots before disposal by a registered chemical waste collector at the Government's Chemical Waste Treatment Centre. Around 618,600 litres of waste oil were collected from depots and bus maintenance sites by a registered waste oil recycling agent for recycling or disposal in line with the statutory standards.

### Cartridge Recycling Programme

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### Green Measures at Office and Depot

The Green Office concept drives both the design and the renovation of our premises. The air-conditioning thermostats are set to 25.5°C to conserve energy and protect air quality in support of the Government's Action Blue Sky Campaign. Lower-energy LED lighting has been introduced in all newly renovated office spaces in depots and in the common areas of our headquarters building including the main lobby to reduce electricity consumption and the demand for air-conditioning.

As part of our commitment to promoting a low carbon environment, we are progressively installing energy efficient lamps in place of high bay lamps at our bus depots. The lighting, air-conditioning and ventilation systems are equipped with energy-saving features, while regular air sampling is conducted in depot areas to ensure that a healthy working environment is maintained.