

HKIA Environmental Performance



Emissions Reduction: Over 320 Green Vehicles at HKIA

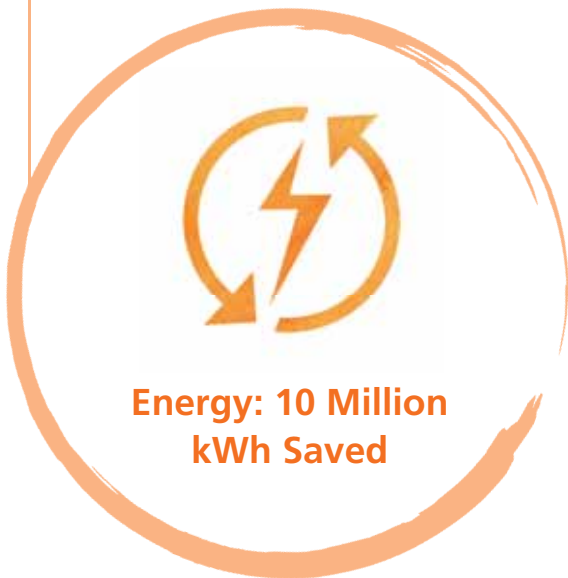
- To demonstrate our commitment to minimise air pollution, we signed the Hong Kong General Chamber of Commerce's Clean Air Charter in 2007. In addition, we endorsed the Aviation Industry Commitment to Action on Climate Change in 2008, a global initiative to mitigate our industry's impact on climate change.
- To reduce greenhouse gases, we promote the use of electric, hybrid and liquefied petroleum gas-powered vehicles at Hong Kong International Airport (HKIA). The airport has one of Hong Kong's largest fleets of electric vehicles and ground service equipment, and all of the Airport Authority (AA)'s diesel vehicles now use B5 biodiesel, a mixture of 95% conventional diesel and 5% biodiesel made from used cooking oil. Since 2008, the AA has facilitated the collection of used cooking oil at HKIA, and more than 95,000 litres has been recycled as biodiesel.
- With an efficient public transportation system connecting HKIA and the city, 66% of passengers and 96% of airport staff take the Airport Express, buses or coaches to and from the airport.
- Fixed ground power (FGP) and pre-conditioned air (PCA) systems are provided for aircraft at parking stands, eliminating the need for aircraft to use their fuel-combustion auxiliary power generation units onboard. Powered by electricity instead of jet fuel, the FGP and PCA systems significantly reduce air pollutant and carbon emissions. About 70% of passenger flights use our FGP and PCA systems.
- The AA signed the Environmental Protection Department's Carbon Reduction Charter in 2008. In April 2009, we conducted the first airport-wide carbon audit, and shared our carbon management experience with the airport community through nine workshops. More than 30 of our business partners have completed carbon audits that cover 90% of the buildings and vehicles at HKIA.

- We recycle a variety of materials, including cardboard, paper, plastics, scrap metals, glass, food waste, tyres, lubricating oil and fluorescent tubes.
- Over 60 recycling bins are available at the airport to collect recyclable waste.
- In the past five years, we recycled more than 4,600 tonnes of waste, including over 240 tonnes of food scraps, which were converted into soil conditioner for the airport's landscaping. A new compost system, which can process 200 kilogrammes of food waste per day, started operation in April 2010.
- Asphalt waste from pavement refurbishment work is reused in road resurfacing and in the base and sub-base courses of the airfield pavement in the midfield.
- We work with the Environmental Protection Department and our business partners to step up recycling of waste wooden cargo pallets.
- In April 2010, we signed the Conscientious Recycling Charter initiated by Friends of the Earth (HK) to show our commitment to recycling all our used computers, electrical waste and electronic equipment through proper recycling channels verified by the Environmental Protection Department.
- In the past five years, HKIA's wastewater treatment plant processed 6.4 million cubic metres of wastewater from aircraft catering facilities, aircraft washing bays, passenger terminal restaurants and rest room sinks. A portion of the treated water is used to irrigate the airport's landscaping.



Recycling: More than 4,600 Tonnes of Waste Recycled

- A wide range of measures have been introduced to improve the efficiency of the lighting, ventilation, air-conditioning and hydraulic systems, as well as escalators and travelators at HKIA.
- During the year, we replaced 4,200 lighting fixtures with light-emitting diode (LED) lights.
- All these measures contributed to an annual saving of about 10 million kilowatt hours (kWh) in 2009/10, which is an equivalent to 5,600 tonnes of carbon emissions.



**Energy: 10 Million
kWh Saved**



Local Ecology and Greening

- Great care has been taken in HKIA's design, construction and operation to protect local wildlife and the natural habitat. To increase the diversity of inter-tidal flora and fauna, 90,000 mangrove seedlings were planted in Tai O in 2005 and 2006.
- We fund the management of the Sha Chau and Lung Kwu Chau Marine Park, and have supported research into Chinese white dolphins, the development of an artificial reef programme in North Lantau waters and a conservation plan for Romer's tree frog, which is native to Hong Kong.
- To create a green environment for passengers and airport staff, we have grown 700,000 plants over an area of three million square metres on the airport island.

Our Plans

- An upgrade to the airport's chiller systems will be completed in 2011, saving five million kWh and 2,800 tonnes of carbon emissions per year.
- We plan to install an additional 81,000 LED lights in our passenger terminals by 2013 to save another 13 million kWh and 7,280 tonnes of carbon emissions per year.
- We have begun studying the feasibility of roof greening and the use of solar panels and wind turbines.
- Improvements will be made to the wastewater treatment plant by 2012 to enhance the quality of treated wastewater.
- The efficiency of the fixed ground power system will be improved by 2014, reducing local air pollutant emissions and saving over 1,000 tonnes of carbon emissions annually. A new, chlorine-free refrigerant will be used in the pre-conditioned air system, eliminating over 300 tonnes of carbon emissions a year.
- Before the airport opened, we established a comprehensive baseline for water quality and sediment levels in nearby waters to track HKIA's impact on the marine environment. We are now conducting our fourth year-long monitoring programme as part of our commitment to minimising our impact on the local environment.
- We are studying the feasibility of expanding the airport's green area by 130,000 square metres.
- We work with companies operating on the airport island to develop carbon-reduction programmes and set reduction targets for HKIA.