Waste management
Recycling and reuse of waste materials

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Recycling and reuse of waste materials
The Cathay Pacific Group recycles a range of materials in its offices, including paper, plastic, metal, printer cartridges, waste lubrication oil and garment hangers. Further data can be found on our Environmental Indicators table.

Cathay Pacific City recycling

![Graph showing Cathay Pacific City recycling data from 2007 to 2016]

- **Paper and Cardboard**
- **Food Waste**
Cathay Pacific City recycling – glass bottles (pieces)

Other recycled items at Cathay Pacific City (kg)

Cathay Dragon House recycling data (2016):
- Paper and cardboard: 5,415 kg
- Metal: 73 kg
- Plastic: 63 kg

Vogue Laundry used 2.4 million garment hangers in 2016. We continue to reuse these hangers through our rebate programme with private and corporate customers who returned their hangers, which was at 65% in 2016. This is an increase from 57% in 2015.
Inflight waste and recycling

Since we started sorting, reusing and recycling inflight waste in 2006, our cabin crew have continued their efforts to reduce waste from our inflight operations. We continue to find ways to improve our inflight waste management by working around the various limitations onboard, such as storage space, tight flight schedules and procedures, and service quality. This is recognised as one of our customers’ key concerns.

Currently our inflight recycling is only carried out on inbound flights to Hong Kong. We are constrained by regulations in our destination countries where the disposal of waste from international flights is prohibited, and we are unable to bring the waste back on return flights for hygiene and storage reasons. However, we continue to look for opportunities to work with local authorities and other carriers to examine ways of treating waste at these destinations.

At some of the ports, such as North America and Australia, there are very strict health and safety regulations on international waste in place, including those from international flights which require their ‘deep burial and landfill’, or incineration. We continue to monitor any regulatory changes in these countries which may facilitate inflight waste recycling. Cathay Pacific is part of the International Air Transport Association (IATA) Cabin Waste Working Group, which aims to address airline cabin waste management issues and where member airlines share best practices and updates.

In 2016, we recycled 10,799 kg of plastic cups, 20,242 kg of plastic bottles, and 22,066 kg of aluminium cans on Cathay Pacific inbound flights to Hong Kong. Similarly, 3,826 kg of plastic bottles and 1,516 kg of aluminium cans were recycled on Cathay Dragon flights. 517,048 kg of glass bottles were collected from Cathay Pacific inbound flights to Hong Kong for recycling.

Inflight waste recycling (kg)
Recycling retired aircraft

With our aggressive fleet modernisation plans, we continue to retire less efficient aircraft from the fleet. In 2016, we retired three Airbus A340-300s and the last three Boeing 747-400s. When an aircraft retires from our fleet, we work with aircraft manufacturers, the Aircraft Fleet Recycling Association (AFRA), accredited companies, and other companies specialised in end-of-life solutions for aircraft in order to find ways of salvaging spare parts, recycling or reusing aircraft parts and materials. A large proportion of the components can be re-certified and reused during maintenance – or alternatively sold to other users - through aircraft end-of-life programmes. Often, major components like the engines, auxiliary power units and various avionic and aircraft system components are removed to support the fleet.

Due to the planned retirement of 11 A340-300s by 2017, we began working in 2015 with a company specialising in end-of-life solution to recycle these aircraft. Under Airbus’ PAMELA initiative (Process for Advanced Management of End-of-Life Aircraft), eight of our A340s, each weighing 125 tonnes, have been retired and transferred to a workshop in southern France to undergo a recycling process. Up to 90% of their components can be recycled, reused, or recovered. The remaining three A340s will be retired by 2017.
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Aircraft Recycling Steps:

Step 1: Decommissioning
- Cleaning & decontaminating
- Emptying tanks (e.g. fuel, portable water, WC tanks)
- Safety procedures

Step 2: Disassembly
- Equipment & parts removed (e.g. engines, landing gears)
- Removed items are identified, inspected, and tagged
- Equipment & parts could be reuse

Step 3: Dismantling
- Hazardous materials sent to specialised waste handlers
- Fuselage is cut up, sorted, and sent to recyclers
- Unrecoverable waste to landfill (e.g. cabin lining, miscellaneous wastes)

Summary
For reuse upon conditions, such as:
- Engines + APU
- Landing Gears
- Movable parts

For recovery, such as:
- Fluids (Fuel, oils, hydraulic fluid)
- Tyres
- Textiles, Carpets

For land-filling, such as:
- Cabin & Cargo lining
- Polluted mix & wastes
- Miscellaneous

Benefits of Aircraft Recycling
- Increase recycling rate to 90%
- Reduce waste sent to landfills to <10%
- Save over 90% in energy from producing recycled aluminium relative to new aluminium

Cathay Pacific is committed to supporting aircraft manufacturers’ efforts to improve end-of-life recycling in the next generation of aircraft we purchase. Our range of more recent aircraft, in particular the Boeing 747-8F freighters and Airbus A350 aircraft, are designed to ensure high rates (approximately 90 to 95%) of material and component recovery at the end of their useful service lives.