

TEXTILE, ELECTRONICS & OTHER WASTE

CREATED BY



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Overview

When it comes to other recyclables, the Environmental Protection Department (EPD)'s waste management policy now mostly focuses on dealing with electronic equipment, hazardous waste, and construction waste.

In March 2018, WEEE PARK in Hong Kong commenced full operation and started turning tonnes of regulated waste electrical and electronic equipment into valuable secondary raw materials. Annually, the park processes 30,000 tonnes of WEEE including air-conditioners, refrigerators, washing machines, televisions, computers, printers, scanners, and monitors.

In 2020, the recovery rate of waste electrical and electronic equipment (WEEE) saw an increase from 69% to 71% a year later. The recyclable value of WEEE is relatively high, which attracts local recyclers to actively engage in WEEE recovery.

Moreover, in Hong Kong, the Producer Responsibility Scheme on Waste Electrical and Electronic Equipment (WPRS) which was fully implemented in 2018, provides a convenient recycling channel for the proper collection of used equipment requiring disposal. Upon purchase of a new regulated electrical equipment (REE) item, consumers are entitled to a statutory fee removal service arranged by the seller to collect a used item of the same class. Additionally, REE suppliers are required to apply to the EPD for the endorsement of a removal service plan, and pay a recycling levy ranging from HK\$15 per item for computers to HK\$165 per item for television sets and refrigerators.

Another Producer Responsibility Scheme in Hong Kong covers computer and communication products. The Computer and Communication Products Recycling Programme (CCRP) collects used computers and computer parts for refurbishment and recycling. The CCRP has lined up a charitable organisation to help refurbish computers that are still in working condition and donate them to the needy. More than a thousand housing estates and about 500 industrial and commercial buildings throughout Hong Kong have signed up for the CCRP. A free collection service is provided to participating estates and buildings once around every six months on a roster basis.

Concerning hazardous waste such as batteries and fluorescent lamps, the Hong Kong government launched Rechargeable Battery Recycling Programme (RBRP) and Fluorescent Lamp Recycling Programme (FLRP). Both programmes target households, not commercial buildings. Consumers can recycle batteries at designated public collection points, participating estates and commercial/industrial buildings. However, any property management company can organise a rechargeable battery recovery programme in housing estates and commercial/industrial buildings.

As for construction waste, in 2005 the government implemented the Construction Waste Disposal Charging Scheme in order to put the polluter pays principle to work, as well as to provide economic incentives for the adoption of construction methods that could promote reduction, reuse, and recycling of construction waste in the industry. Two off-site sorting facilities namely, Tuen Mun construction waste sorting facility and Tseung Kwan O construction waste sorting facility, were also implemented with the waste charging scheme. In 2017, after completion of a review of the relevant charges, the government increased the construction waste disposal charges.

The quantity of construction waste disposed of at landfills decreased by about 13% to 3,418 tpd (1.25 million tonnes) in 2020. The recovery rate of construction materials rose from 92% in 2019 to 94% in 2020. Clearly, the increase in construction waste disposal charges with effect from April 2017 has a positive impact on waste reduction.

Additionally, we would like to highlight textile waste as Hong Kong generates and disposes of an average of 242 tonnes of textile waste per day to the landfills, of which only 0.5% is recovered. Textile waste rates have risen over the years in comparison with other types of waste that have decreased due to improved public education and government initiatives.

INSIGHTS FROM OUR TRIAL

During the trial with 20 F&Bs in Hong Kong's SoHo/Central District we encouraged waste segregation, reduction, and recycling practices. We provided a collection service for special items such as bulbs, small electronic devices, textile or other materials that can be recycled in Hong Kong. We recommended the outlets to install the "Waste Less" app to locate collection points for special recyclables near to their premises to continue the practice. One of the main issues with recycling these special items as well as furniture is the proximity of collection points and low visibility as oftentimes these are not marked or easily accessible.

GOOD PRACTICES & INNOVATIVE SOLUTIONS

Extended Producer Responsibility Schemes

- France started applying Extended Producer Responsibility Schemes in 1992. The furniture scheme is the latest (2012) of the 14 French EPR schemes. Covering both household and commercial waste, the intended monetary generation from the scheme was over 300 million euros per year. The scheme strongly promotes furniture reuse, closely involving social economy structures in its organisation model. As for other EPRs, they include such types of waste as WEEE, batteries, end-of-life vehicles, packaging, textiles, dispersed hazardous waste, etc. While most schemes focus on household waste, some also deal with commercial waste (e.g., WEEE, furniture). New types of waste will be included in the coming years: packaging from the restoration sector (2023), chewing gum and hospital textile (2024), and finally, fishing items and industrial and commercial packaging (2025).

- The National Television and Computer Recycling Scheme in Australia requires the television and computer industries to fund the collection and recycling of a proportion of the televisions and computers disposed of in the country each year. The long-term goals of the scheme include the diversion of potentially hazardous television and computer waste from landfill, an increase in the recovery of usable materials, and greater access to recycling for communities across Australia.

Textile Recycling

- The Hong Kong Research Institute of Textiles and Apparel (HKRITA), in partnership with H&M Foundation, discovered a way to turn recycled fabrics into new clothes using innovative technologies. One of the most progressive projects brought on by HKRITA is the 'Green Machine', a hydrothermal separation treatment that can recycle blended textiles into new, clean, and wearable fibres without any quality loss. Requiring only heat and very few biodegradable green chemicals, the method assures that no secondary pollution is created during the recycling process.

Bulky Waste Recycling

- In Taipei, Taiwan, the district cleaning teams collect bulky waste free of charge. Residents need to make a booking with the local cleaning team to fix a date and a pick-up location. Bulky waste includes bed mattresses and frames, carts, bicycles, electric fans, gas stoves, large water dispensers, sofas, tables and chairs, cabinets, waste electrical appliances, and luggage cases.
- In Seoul, South Korea, bulky household waste generally refers to furniture and electrical appliances. A waste sticker must be purchased from the local government and attached to such waste for disposal, with collection fees varying across items and across districts. Residents need to bring the bulky waste to a designated location for pick-up or bring it to local recycling centres. For disused (but not broken) home appliances, the Ministry of Environment has introduced a free collection service in Seoul since 2012.
- The collection of bulky waste in Berlin, Germany, is arranged by a public waste collector on request and with a collection fee based on the volume of the items disposed of. Advance booking one to six weeks prior to disposal is required. Dropping off any bulky item under three cubic metres in volume at the recycling centres is free of charge.

Electrical and Electronic Equipment Recycling

- In Berlin, Germany, there are "eBox" placed on the city streets for the collection of small appliances by the public waste collector. Alternatively, these appliances can be taken to prescribed vendors and specific recycling centres. Vendors are also obliged to take back the old equipment for free when a new one is sold under the producer responsibility scheme.

Hazardous Waste Recycling

- Since 2016, McDonald's restaurants in Hong Kong have been serving as the Rechargeable Battery Recycling Programme's designated Public Collection Points. Members of the public who intend to deposit rechargeable batteries at McDonald's restaurants for recycling through the Rechargeable Battery Recycling Programme may approach the restaurant staff.

Donation Services

- WEEE-PARK in Hong Kong refurbishes some serviceable electrical appliances for donation to the people in need. Refurbished appliances available for donation include refrigerators, washing machines, air conditioners, and televisions. The application should be made through a referral by a registered social worker.
- Founded in 2017 in the Netherlands, the startup called Excess Materials Exchange (EME) is essentially a marketplace and a digital matching platform as any other dating website, where organisations can post their excess materials, and see whether other companies would be interested in acquiring them. The website matches the supply and demand of these materials or products, but above all, it finds new high-value reuse options for materials or (waste) products for companies. EME is determined to accelerate the global transition to a circular economy and play a part in creating a more viable planet.

RECOMMENDATIONS

Restaurants

Set up partnerships with charities to donate textiles, electronic appliances, and furniture to disadvantaged communities. If donation is not an option, consider the available recycling programmes and collection points through the “Waste Less” app.

Making the business a designated public collection point for batteries can foster behavioural change among staff and customers. These can be then disposed of at the MTR stations and other collection points.

Regarding bulky waste, restaurants need to plan for its removal. It is important to plan the restaurant design with circularity in mind and plan ahead if items need to be removed for the reuse of furniture.

Customers

To avoid being wasteful with electronics, try extending their usage by buying a protective case, keeping it clean, avoiding overcharging the battery, repairing an item rather than throwing it away, etc.

Whenever possible, replace disposable batteries with rechargeable batteries as they last longer and are better for the environment.

Avoid throwing away office furniture if it can be of use to someone else. Consider selling surplus or redundant items online through platforms such as Facebook Marketplace or Carousell or find out if local charities will accept them. Additionally, some suppliers offer take-back schemes for their products so they can be reused or recycled as mentioned above.

Recycling does not solve the environmental issues we face; it simply addresses one of the symptoms. The best possible way to contribute to a better environment is to reduce the amount of waste created through prudent purchasing decisions and buying second-hand to minimise our personal impact.

Government

We encourage the Hong Kong government to take a leadership role in creating a circular economy model for textiles and WEEE, moving away from the current linear system. The introduction of a regulated Producer Responsibility Scheme (PRS) for clothing and textile products can be feasible - consider the current WEEE PRS as a model for complex materials recovery.

While EPR schemes cannot be considered a magical solution to address waste management, they still help to channel activities in the right direction and create a powerful tool to develop robust waste policies. Of course, EPR schemes are only one instrument in the toolbox, and they should be combined with other types of tools - from regulatory frameworks to fiscal tools (pay-as-you-throw schemes, landfill taxes), standards, public procurement policies, etc.

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