

Appendix 1: The introduction of NLP Recycling Facilities

Utilise Advanced Recycling Processing System to Ensure the Highest Resource Quality

In recent years, thanks to the initiatives and efforts of the government, NGOs, collectors and consumers, the community's awareness and habit of recycling clean plastic bottles has greatly improved, providing a high-quality source of recycled plastic PET beverage bottles for NLP.

NLP's role begins with the arrival of post-consumer PET beverage bottles and HDPE containers packed in bales, then the entirety of them will go through the 5 dedicated advanced processing pillars in the facility, namely *Preparation, Separation, Sorting, Processing* and *Quality Control*.

The processing briefly explained, the Bales Breaker opens the bales, here the bottles are separated from each other before going through an Over-belt Magnet, for the removal of metal impurities and the drum screen to size screening of the bottles, and label Scraper, to remove the labels from the bottles. Next step, the bottle sorting according material specs (PET or HDPE) and in the second stage, separation of transparent bottles from colored bottles colors by using advanced automated optical sorting technology.

Afterwards, the separated clear PET bottles and HDPE containers will be sent to different silos for the processing phase, as, grinding, washing, and drying. The final Clear PET flakes will additionally go through a Dual Hot Washing Stage and a final quality check of size and purity by a flake Optical Sorter, both are important steps to comply with the food-grade ready standard. The other products as colored rPET flakes, label flakes and, cap and ring flakes, rPET fines, will be processed separately and sent through different silos for final storage.

NLP also features an in-house quality control laboratory to monitor closely on all yields, and food grade ready quality specifications, thereby, ensuring the highest possible standards are met before dispatching.

The scheme and facilities are designed with the theme of sustainable development, with online and offline guided group tours

Designed with sustainable building features, including a photovoltaic power system for renewable electrical energy, a heat recovery system from air compressors to provide warm water for cleaning flakes, an integrated water circulation system and a wastewater treatment, NLP is committed to an environmentally friendly form of energy and water consumption.

The introduction of the first-of-its-kind food-grade ready rPET flake ready recycling processing in Hong Kong by NLP is pivotal to the local plastic bottle recycling industry, as it is an important part of the closed-loop recycling solution, meaning that the valuable material is recycled back to a quality similar to virgin PET, hence, creating more economic and environmental value.

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Appendix 2: “Rebate and Money Saving” Plastic Bottle Recycling Guide

Assuming a family of four, each person consumes one plastic bottle of beverage per day, each plastic beverage bottle of the most common bottle size of 0.72 litres

- **Plastic Bottle for Rebate**
 - For every beverage container fed in the Reverse Vending Machine, each can get HK\$0.1 rebate
 - Taking the most common beverage bottle size of 0.72 litres each, assuming each person consumes one plastic bottle of beverage per day, a family of four consumes 120 plastic bottles per month, and can get a rebate of \$12

- **Plastic Bottles for Money Saving**
 - The household solid waste levy will adopt the "by designated bag"/"by designated label" model, with a charge of \$0.11 per litre, with nine different sizes for general use by the public, including t-shirt (3L-20L) and flat-top (20L-100L) designs
 - Taking the most common beverage bottle size of 0.72 litres each, assuming each person consumes one plastic bottle of beverage per day, a family of four has nearly 3 litres of solid waste per day; taking the solid waste levy for t-shirt bag size of \$0.11 per litre, the daily charge will be \$0.33 with a monthly expenditure reaching \$9.9

- **If the plastic bottles are well-cleaned and returned to RVMs:**
 - It can increase the family monthly income by \$12
 - Save \$9.9 on garbage bags
 - Bring a total benefit of \$21.9
 - If there is a larging plastic bottled beverage consumption, the benefits will even be greater

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Appendix 3: Tips for Properly Recycling Plastic Bottles

The proper recycling steps are as follows:

There is a chance that the entire bin of recyclables will become wastage if we improperly discard or pollute the recyclables. Therefore, it is recommended to follow the below steps when recycling plastic bottles:

- First, distinguish recyclables from non-recyclable items: Items that can be collected by the brown recycling bin include beverage plastic bottles and plastic containers of personal care products
- Clean and sort before recycling:
 - Remove the bottle cap first
 - Pour out the liquid in the plastic bottle, and then rinse with clean water
 - Remove the labels on the bottle, and return the recyclables, "paper for paper, plastic for plastic"
 - Put the plastic bottle caps, labels and plastic bottles to their respective recycle bins

Alternatives to Recycling Bins: Reversed Vending Machines

After the used beverage plastic containers are processed, return them to EPD's 120 RVMs:

- EPD will provide an instant rebate of \$0.1 per beverage plastic container via e-payment platforms to encourage the public to return their used plastic beverage containers.
- Each Octopus card or Alipay (Hong Kong) account allows the public to return a maximum of 30 plastic beverage containers and redeem the rebate in a day
- Members of the public may also choose to donate the rebate (no daily limit imposed) to designated charitable organisations to benefit the community.
- All the beverage plastic containers collected would be delivered to suitable local recyclers, as arranged by the Government-appointed contractors, for recycling to ensure the conversion of waste into resources.
- Citizens can also choose to return beverage plastic bottles into the RVMs jointly launched by Swire Coca-Cola Hong Kong, Octopus Cards Limited and the World Green Organisation. Swire Coca-Cola Hong Kong offers the following for every beverage bottle returned via the jointly launched Reversed Vending Machines:
 - HK\$0.1 cash rebate via Octopus cards
 - HK\$0.1 donation for environmental protection education

Handling of other plastic materials

For recycling plastic bags, plastic tableware, drinking straws, food boxes, disposable plastic food containers, yogurt cups, plastic bottle caps, plastic buckets, CD discs/boxes, plastic packaging boxes for mobile phone cases, etc. The above non-bottle waste plastics can be sent to the plastic classification recycling bins set up by the community recycling stations in various districts of "GREEN@COMMUNITY", operated by the non-profit organisation subsidised by EPD. Under the scheme, there are also recycling spots set up in different districts every week to facilitate residents recycling.

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