

Operational Guidelines on Sustainable Purchasing

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1. Green Purchasing Principles

The work that occurs in offices at HKUST is critical to the performance of our university, especially in meeting the needs of our teaching and learning community. At the same time, the decisions made on a daily basis can make a huge difference in ability of HKUST to maintaining a more healthy, vibrant, and sustainable campus. The following principles highlight the approach towards purchasing decisions that can result in our positive and desired outcomes.

i. **Always focus on health first**

There are many attributes of products we buy for office use that may have adverse effects on ourselves and those in our offices. This guide will point out areas where certain products might be avoided, or where alternatives could contribute to a healthier work environment.

ii. **Consider the welfare of staff and contract workers**

The University maintains a living wage policy, with the living wage set at \$58.9/hr, (May 2023) to ensure a sustainable reasonable level of life based on family size and geography. This living wage expectation extends to contractors and others who do business with the university. This is higher than the government's statutory minimum salary of \$40 per hour as of May 2023.

iii. **Reduce the amount of materials, equipment, or supplies**

Consider whether the product or service is actually necessary prior to the purchase, or if the existing supplies can be used to meet the need.

iv. Focus on the value, not the cost

Often, a product that costs a little more may be much more durable, of better quality, and can contribute over a longer lifespan. Overall, these products save the university money (since they need to be replaced less often) while reducing waste. Adopting life cycle cost analysis, which examines purchases from a lifetime perspective, results in improved durability, less maintenance, fewer risks, reduced operational spending, and can even lead to an increased lifespan.

v. When purchasing, look for positive environmental attributes

Many products available now have notable environmental attributes compared to traditional choices, and can significantly reduce HKUST's environmental burden. Products that can be reused (instead of those that are disposable) reduce landfill waste; those that are best in class in efficiency reduce energy, water, and greenhouse gases (GHG); and those with eco-labeling or certifications give us confidence that an independent body has verified its valuable contributions.

vi. Look beyond the product

Even a similar product might have different impacts based on the way the supplier packages or delivers the product to our university. Consolidating purchases or buying in bulk can reduce transportations impacts, and requesting vendors to reduce packaging can eliminate landfill waste.

2. Setting the Tone with Suppliers

Many of our office purchases have already been negotiated on behalf of the university by the HKUST Purchasing Office (PURO). This office has a high standard for sustainable purchasing contracts with suppliers, and constantly strives to improve the environmental performance of HKUST by "greening" our supply chain.

However, offices at times make purchases independently, or have special cases for buying new products. In these cases, we recommend that offices use these occasions to remind our vendors of our commitment to environmental performance.

In the case that a tender is developed, our Sustainable Purchasing policy asks that we include the following statement:

HKUST is committed to creating a sustainable campus setting where resources are utilized responsibly and all members of the HKUST community have the capacity to thrive within a healthy environment. The specifications detailed in this document are predicated on the expectation that the Contractor respects and supports HKUST's commitment to creating a sustainable campus.

For any other specific questions about the tendering process or the details of the Sustainable Purchasing policy, please contact PURO at puro@ust.hk. The form for the Contractor Sustainability Performance can be found at the end of this document.

3. General Guidance for Office Purchases

In this Guide, office purchases are organized into four main categories: (1) Appliances and equipment, (2) general office supplies and stationary, (3) IT equipment; and (4) cleaning or food-related supplies.

i. **Appliances and Equipment**

Most appliances and equipment purchased for the university are evaluated based on their energy efficiency through the Electrical and Mechanical Services Department (EMSD) of the Hong Kong government. The labelling schemes provide the appliance's energy efficiency information and grades the appliance's energy efficiency on a scale of 1 to 5, with 1 being the most energy efficient and 5 being the least efficient. The scheme covers household appliances and office equipment including **photocopiers, fax machines, multifunction devices, printers, LCD monitors, computers and hot/ cold bottled water dispensers**, as well as larger appliances such as **room air conditioners, dehumidifiers, washing machines, and refrigerating appliances**.

The Sustainable Purchasing policy requires that all equipment and appliances meet the EMSD Level 1 performance level.

For products that are not covered with the EMSD labelling scheme, officers are urged to look for products that have earned the ENERGY STAR label from the U.S. Environmental Protection Agency (EPA). ENERGY STAR has grown to represent products in more than 70 different categories, and to receive ENERGY STAR recognition, the product must pass rigorous third-party certification requirements and testing. <https://www.energystar.gov/>

ii. **General Office Supplies and Stationery**

The Hong Kong Green Label Scheme is an independent, non-profit and voluntary scheme for the certification of environmentally preferable products launched in 2000 by Green Council. The scheme sets environmental standards and awards its "Green Label" to products that are qualified regarding their environmental attributes and/or performance. As with all eco-labelling schemes, the aim is to encourage manufacturers to supply products with good environmental performance and provide a convenient means for consumers to recognize products that are more environmentally responsible, thus promoting a more sustainable pattern of consumption.

iii. Office IT Equipment

There are two certification bodies that oversee the types of IT equipment typically used in office settings. For personal IT equipment – such as desktop computers, laptops, tablets, projectors, headsets, and cell phones – TCO Certified is an international third-party sustainability certification for these IT products. TCO Certified is a type 1 Ecolabel in accordance with ISO 14024. For other electronics, EPEAT® is a global rating system for evaluating their green attributes. The EPEAT system combines strict, comprehensive criteria for design, production, energy use and recycling with ongoing independent verification of manufacturer claims. EPEAT was developed through a stakeholder consensus process and is managed by the Green Electronics Council, a non-profit organization based in the USA.

For assistance in determining the performance level of individual items, offices may contact PURO or ITSC for further guidance.

In addition to green certifications for IT equipment, it is essential that these items also safeguard the health of the members of our HKUST office spaces. The RoHS Guide, also known as Lead-Free, stands for Restriction of Hazardous Substances. It originated in the European Union and restricts the use of six hazardous materials found in electrical and electronic products. All applicable products in the EU market after July 1, 2006 must pass RoHS compliance.

iv. Cleaning and Food-Related Supplies

Office spaces are where we live and work, so we place a high premium on keeping these spaces clean and healthy. When cleaning supplies are needed, Green Seal offers third-party certification on cleaning products that help protect the natural world and human health. Green Seal Certification is a process that

ensures that a product meets rigorous performance, health, and environmental criteria. These criteria are listed as Green Seal Standards. Achieving certification of products helps manufacturers back up their environmental claims and helps purchasers identify products that are safer for human health and the environment.

If offices have any questions about certain products or would like recommendations, they are encouraged to contact PURO or CMO Housekeeping departments.

Green events – throughout the year offices hold meetings, facilitate events, have celebrations, and entertain. Many times these activities involve food. Food is an excellent way to make these events successful, and also a great opportunity to help reduce our campus waste going to the landfill. With simple changes – such as using reusable plates and cutlery, requesting compost collection containers, and choosing caterers who comply with HKUST Green events guidelines – offices can enjoy these activities while reducing the university's environmental burden.

Offices can consult the Green Events guide for ideas, tips, suggestions and strategies for reducing waste and increasing environmental performance during office-sponsored events.

4. Definitions

- i. **Chlorinated Paraffins** – These chemicals are used as plasticizers and flame retardants in rubber, paints, adhesives, sealants and plastics. Short-chain chlorinated paraffins are persistent, bio-accumulative, and toxic to aquatic organisms at low concentrations. They can remain in the environment for a significant amount of time and can bio-accumulate in animal tissues, increasing the probability and duration of exposure. Even relatively small releases of these chemicals from individual manufacturing, processing, or waste management facilities have the potential to accumulate over time to higher levels and cause significant adverse impacts on the environment.
- ii. **Halogenated Substances** – Many companies have identified dioxin formation from e-waste containing halogenated chemicals treated in substandard conditions as the most problematic issue and have worked to exclude these kinds of substances from their products.

- iii. **Ozone Concentration** – Xerographic copying and printing equipment generates ozone when high-voltage charging devices produce an electrostatic discharge during a copy run. Ozone has been classified as a pollutant by most regulatory bodies around the world. Concentrations above 0.3ppm can produce headaches, eye irritation and breathing difficulty.
- iv. **Alkylphenolethoxylates (APEOs), Phthalates** – APEOs are surfactants which have an emulsifying and dispersing action, so they have good wetting, penetration, emulsification, dispersion, solubilizing and washing characteristics. They are slow to biodegrade and tend to bio-accumulate. They have been shown to be toxic to aquatic organisms and an endocrine disruptor in higher animals, and therefore they pose a risk to humans. Phthalates (commonly known as plasticizers): The main source of phthalates is the plastisol prints on clothes. Phthalates can be inhaled or ingested by customers and harm to human's development and reproductive system, causing low sperm count in men and infertility in women.
- v. **FSC Certified** – FSC is a global, not-for-profit organization dedicated to the promotion of responsible forest management worldwide. FSC certification ensures that products come from well managed forests that provide environmental, social and economic benefits. The FSC Principles and Criteria set out best practices for forest management.

5. Guidelines for Specific Items

i. **Paper Shredder**

- ✧ Product components (circuit boards, electrical, electronic and plastic components) should comply with RoHS.
- ✧ Any plastic parts should be manufactured without chlorinated paraffins flame retardants.
- ✧ Component parts should not contain halogenated substances.

ii. **General Office Stationery**

- ✧ The product should comprise recycled raw materials (particularly for the constituent paper fibre and plastics).
- ✧ The product should not be manufactured with dyes, pigments or coatings that contain mercury, lead, copper, chromium, nickel, aluminium or cadmium as constituent parts.

- ✧ The product should not contain alkylphenol ethoxylates (APEOs), phthalates or halogenated solvents.

For small amount purchase, you can look for at least one product declaration below:

- ✧ Contain recycled content or material
- ✧ Phthalate-free (無鄰苯二甲酸酯)
 - * For office supplies such as Notebooks and notepads, envelops, letterhead, name card printing, paper file packets, file boxes, carton boxes, please look for items that are made of recycled paper or paper from sustainable sources such as FSC certified. For printing items, select the printing companies that use soy ink or eco-friendly ink.*

iii. Writing (Pens)

- ✧ The product should use refillable ink or refills, and such refill products should be available.
- ✧ The ink should not contain volatile organic solvent, aromatic or halogenated hydrocarbons.
- ✧ Bio-accumulable preservatives should not be used.

For small amount purchase, you can look for at least one product declaration below:

- ✧ Non-toxic
- ✧ The product should use refillable ink or refills, and such refill products should be available.
- ✧ Contain no volatile organic solvent (揮發性有機溶劑)

iv. Computers / LCD Monitors

- ✧ The equipment should have obtained a Recognition Type Energy Label under the Energy Efficiency Labelling Scheme of Electrical and Mechanical Services Department (EMSD).
- ✧ Obtained energy saving qualification or label like Energy Star Label, TCO, EPEAT certification.
- ✧ Any plastic parts should be manufactured without chlorinated paraffins flame retardants.
- ✧ Component parts should not contain halogenated substances.
- ✧ Product components (circuit boards, electrical, electronic and plastic components) should comply with RoHS.

- ✧ The background illumination for the product should not contain more than 3mg of mercury per lamp (for LCD monitors).
- ✧ The energy consumption of the product should not be greater than 3W and 1W during sleep mode and off mode, respectively.

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