

THE CHINESE UNIVERSITY OF HONG KONG

Social Responsibility and Sustainable Development Office

Sustainable Procurement Guidelines

Preamble

1. The Sustainable Procurement Guidelines, together with a list of products suitable for purchase by University units, contractors and consultants, are provided to all staff members to inform them of the details and requirements of the University's Sustainable Procurement Policy:

‘As a publicly-funded tertiary education institution, The Chinese University of Hong Kong (CUHK) is resolved to adopt sustainable procurement as a way of ensuring that the products and services we buy are as sustainable as possible. CUHK seeks to couple positive economic and social results with the lowest possible environmental impact, thereby maximizing net benefits for ourselves and the wider world.’

General Principles

2. The following general principles should be observed when purchases are made or when tender and contract specifications are prepared:
 - (a) Economic
 - Ensuring that local businesses, particularly small and medium sized enterprises, can benefit from our procurement.
 - (b) Environmental
 - Seeking to minimize any negative environmental impacts of all goods and services purchased, throughout their life cycle.
 - (c) Social
 - Managing and monitoring supply chains to ensure that fair contract prices and terms are applied and that ethical, human rights and employment standards are met.
3. Purchasers shall consider, identify and analyze the sustainability risks of goods and services procured and address these risks where appropriate. In the case of products which can carry publicly recognized environmental labels or energy labels, such labels should be included as a mandatory purchasing or tendering requirement.
4. The United Nations has developed a set of Sustainable Procurement Indicators ([Annex A](#)). CUHK members are recommended to make reference to the indicators during the procurement process.

Implementation and Compliance

5. This set of official guidelines, developed by a working group comprising members from the Social Responsibility and Sustainable Development Office, the Finance Office, the Campus Development Office and the Estates Management Office, has been endorsed by the Committee on Social Responsibility and Sustainable Development. The Sustainable Procurement Guidelines specify the applicable and practicable attributes and include a list of selected items.
6. The Guidelines are posted on the webpage of the Business Unit of the Finance Office and must be strictly complied with. Their specifications must be included as purchasing requirements whenever the University's purchasers (or the University's contractors and consultants acting on its behalf; see [Outsourcing Policy in CUHK](#)) purchase the listed items.
7. Unit heads are responsible for ensuring that members of their staff are aware of the Guidelines and adhere to them. They shall:
 - (a) Inform all staff members of the requirements stipulated in the Sustainable Procurement Guidelines;
 - (b) Provide guidance to the staff responsible for purchasing if necessary and ensure compliance with the requirements;
 - (c) Consider ways in which the unit can support sustainable procurement on campus, and explore opportunities to purchase more sustainable products that are commonly used by the unit, where possible and economical; and
 - (d) Submit new ideas or suggestions for good practice to the Social Responsibility and Sustainable Development Office.
8. While no formal audit will be conducted to ensure compliance, unit heads are responsible for ensuring that their staff members responsible for purchasing are aware of, and are able to comply with, the stipulated requirements.

Specifications of Products and Services

Mandatory

9. The products listed in the table below are commonly-used items in the University. All of them come with widely-available and economical sustainable options on the market. Purchasers of individual units are required to adopt specifications when purchasing these 16 items or, if the items are to be purchased on behalf of the University by contractors and consultants, to include the relevant specifications in tender invitations (more details in [Annex B](#)).

Product		Application
(i)	Paper (A4 and A3)	A4 and A3 printing or photocopying paper (white) of 75gsm and 80gsm for in-house copying/printing
(ii)	Multifunction photocopiers	Multifunction photocopiers in the centralized tender

Product		Application
(iii)	Laser printers	Laser printers in Information Technology Services Centre (ITSC)'s tender
(iv)	Desktop computers	Desktop computers in ITSC's tender
(v)	LCD monitors	LCD monitors in ITSC's tender
(vi)	Notebook computers	Notebook computers in ITSC's tender
(vii)	Room air conditioners	All room air conditioners
(viii)	Refrigerators	All refrigerators with a total rated storage volume of 500 litres or below
(ix)	Dehumidifiers	All dehumidifiers with a dehumidifying capacity not exceeding 35 litres per day
(x)	Washing machines	All washing machines with rated capacity not exceeding 7 kg
(xi)	Lamps	(a) Incandescent lamps: Incandescent lamp bulbs that are 25 watt (W) or above, including General Lighting Service (GLS) lamps (standard light bulbs), candle shape, fancy round and other decorative lamps, and tungsten halogen lamps (quartz lamps) (b) Integrated compact fluorescent lamps (CFLs) (c) Fluorescent lamp tubes
(xii)	Fluorescent lamp ballasts	Ballasts for florescent lamp tubes
(xiii)	Paints	Architectural paints and coatings for walls and ceilings
(xiv)	Carpets	Carpets to be installed in new buildings or for retrofitting
(xv)	Sustainability-conscious food consumption	All activities that are either organized or paid for by CUHK; all CUHK purchases, and meals served in club houses, canteens or restaurants operated by the University and the Colleges (N.B. The Finance Office will list the prohibited species in the 'Reimbursement / Payment for Entertainment Expenditure Form' used by all offices.)
(xvi)	Plastic disposables	All catering outlets, shops and vending machines on campus; all activities or events that are either organized or paid for by CUHK

10. Information about energy labels and environmental labels is provided in [Annex C](#).

Recommended

11. For other products and services that are also commonly used by the University but may not be as widely available as those included in Section 9, a list of recommended products is given in [Annex D](#) for units, contractors and consultants' reference when making such purchases.

Initiatives

12. Some major purchasers and tender callers have already pioneered a sustainable procurement approach at the University. Staff members responsible for purchasing on behalf of the University are welcome to refer to these pioneering initiatives ([Annex E](#)) when considering ways their units can join the movement to make CUHK's purchases as sustainable as possible.
13. The University also promotes the sustainable procurement approach in the following ways:
 - (a) Major tender callers will continue to explore the availability, quality and prices of sustainable options for products commonly used in the University so that more sustainable options will be available at reasonable prices. Furthermore, the University will engage suppliers of goods and services on campus (e.g. bookstores) to make it easier for staff and students to obtain sustainable products.
 - (b) The Social Responsibility and Sustainable Development Office will regularly update the lists to reflect changes in the types and specifications of sustainable products procured by the University.

Enquiries and Suggestions

Enquiries and suggestions are welcome.
Please contact the Social Responsibility and Sustainable Development Office by:

Email: srsdo@cuhk.edu.hk
Telephone: 3943 3972

(First published in July 2021)

Social Responsibility and Sustainable Development Office

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Sustainable Procurement Indicators of the United Nations

In March 2019, the sustainable procurement working group of the [High-Level Committee on Management](#) under the United Nations (UN) System Chief Executives Board for Coordination published 12 indicators (summarized below; for details, please click this link: <https://www.unghm.org/Shared/KnowledgeCenter/Pages/SustainableProcurementIndicatorProject>), which allow sustainable procurement within the UN system to be systematically monitored, measured and reported.

Environmental

- Climate change mitigation and adaptation
- Prevention of pollution
- Protection of the environment, biodiversity and restoration of natural habitats
- Sustainable resource use

Social

- Gender issues
- Human rights and labour issues
- Social health and well being

Economic

- Local communities and SMEs
- Promoting sustainability throughout the supply chain
- Whole life cycle cost

Generic

- Supplier audits
- UN Global Compact


Social Responsibility and Sustainable Development Office

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Mandatory Products and their Specifications

The products listed in this section are mandatory products, which are commonly-used items in the University. Purchasers of individual units are required to adopt the specifications when purchasing the following items or, if the items are to be purchased on behalf of the University by contractors and consultants, to include the relevant specifications in tender invitations.

(i) Paper (A4 and A3)

Applies to:	A4 and A3 printing or photocopying paper (white) of 75gsm and 80gsm for in-house copying/printing	
Specifications:	100% recycled, non-chlorine bleached paper ¹	
Effective from:	2012	
How to purchase:	<ul style="list-style-type: none"> - Recycled A3 and A4 (white) paper of 80gsm that meets the green specifications can be purchased from the supplier(s) in the Business Unit's centralized tender. - If 75gsm recycled paper is not available, use 80gsm recycled paper in place of 75gsm and 80gsm conventional white paper. - Green options available in the tender have been labelled with the text 'GREEN!'. 	
Certifications:		<p>Recycled product logo (usually found on the package)</p> <p>('Environmentally-friendly' paper in the market is not necessarily the same as 'recycled paper'. It can also be made of wood pulp from forests managed in ways that minimize ecological damage and large-scale cutting of trees.)</p>



(ii) Multifunction photocopiers

Applies to:	Multifunction photocopiers in the centralized tender
Specifications:	Energy Star label, recognition-type energy label (by the Electrical and Mechanical Services Department/EMSD) ² , or other power-saving qualification; built-in duplex function ³
Effective from:	2012
How to purchase:	All the photocopiers in the Business Unit's centralized tender meet the aforesaid green specifications.



¹ The traditional method of bleaching paper with chlorine creates dioxins. These chemicals can cause cancer. Dioxins can be absorbed into human bodies when people come in contact with paper products, or when people consume water or produce contaminated by dioxins discharged into rivers by paper mills. It is therefore important to ask for paper bleached using new chlorine-free technologies.

² For more information on energy labels/environmental labels, please refer to [Annex C](#).


³ Duplex function enables users to print double-sided and thus save paper.

	Green models in the tender have been labelled with the text ' GREEN! '.	
Certifications:		Energy Star label
		Recognition-type energy label

(iii) Laser printers



Applies to:	Laser printers in ITSC's tender	
Specifications:	Energy Star label, recognition-type energy label (by EMSD) ² , or other power-saving qualification; built-in duplex function ³	
Effective from:	2012	
How to purchase:	Green models in the tender have been labelled with the text ' GREEN! '.	
Certifications:		Energy Star label
		Recognition-type energy label

(iv) Desktop computers



Applies to:	Desktop computers in ITSC's tender	
Specifications:	Energy Star label, or other power-saving qualification like TCO; EPEAT® registration preferred ²	
Effective from:	2012	
How to purchase:	All desktop computers in ITSC's tender meet the aforesaid green specifications. Green models in the tender have been labelled with the text ' GREEN! '.	
Certifications:		Energy Star label

		EPEAT logo
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(v) LCD monitors

Applies to:	LCD monitors in ITSC's tender	
Specifications:	Energy Star label, or other power-saving qualification like TCO; EPEAT registration preferred ²	
Effective from:	2013	
How to purchase:	All LCD monitors in ITSC's tender meet the aforesaid green specifications after the setting of the new tender. Green models have been labelled with the text ' GREEN! '.	
Certifications:		Energy Star label
		EPEAT logo

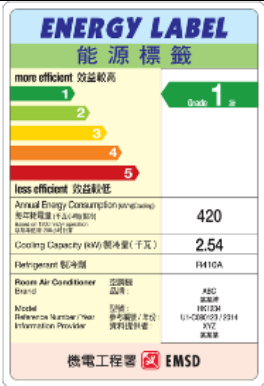
(vi) Notebook computers

Applies to:	Notebook computers in ITSC's tender	
Specifications:	Energy Star label, or other power-saving qualification like TCO; EPEAT registration preferred ²	
Effective from:	2012	
How to purchase:	All notebook computers in ITSC's tender meet the aforesaid green specifications. Green models have been labelled with the text ' GREEN! '.	
Certifications:		Energy Star label
		EPEAT logo

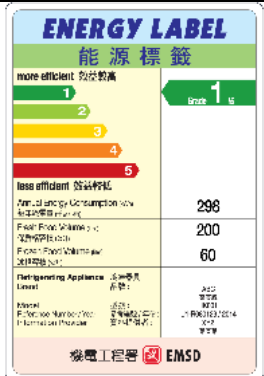
(vii) Room air conditioners

Applies to:	All room air conditioners ⁴
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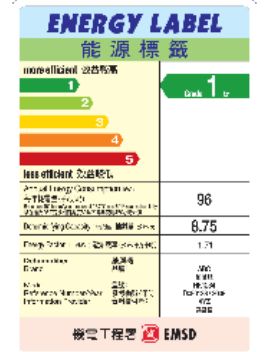
⁴ With cooling capacity not exceeding 7.5 kW and covered in the Mandatory Energy Efficiency Labelling Scheme.

Specifications:	Grade 1 of mandatory energy label (by EMSD) ²	
Effective from:	2012	
How to purchase:	All room air conditioners in Hong Kong with cooling capacity not exceeding 7.5 kW have the mandatory energy label.	
Certifications:	 <p>The image shows a mandatory energy label for a room air conditioner. It features a scale from 1 (most efficient) to 5 (least efficient). The label indicates a Grade 1 rating. Key specifications listed include: Annual Energy Consumption (kWh/year) of 420, Cooling Capacity (kW) of 2.54, and Refrigerant (R410A). The label also includes the EMSD logo and contact information for the Electrical Engineering Council.</p>	Grade 1 air conditioner mandatory energy label

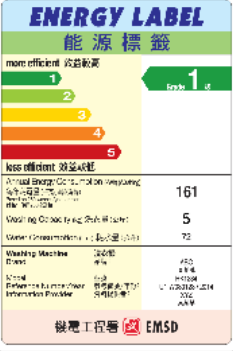
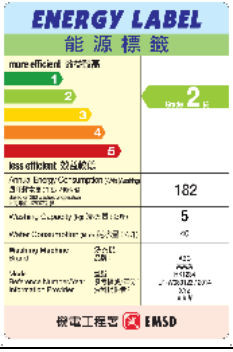

(viii) Refrigerators

Applies to:	All refrigerators with a total rated storage volume of 500 litres or below	
Specifications:	Grade 1 of mandatory energy label (by EMSD) ²	
Effective from:	2016	
How to purchase:	All refrigerators with a total rated storage volume of 500 litres or below have the mandatory energy label.	
Certifications:	 <p>The image shows a mandatory energy label for a refrigerator. It features a scale from 1 (most efficient) to 5 (least efficient). The label indicates a Grade 1 rating. Key specifications listed include: Annual Energy Consumption (kWh/year) of 298, Frost-Free Storage (kg) of 200, and Frost-Free Volume (litres) of 60. The label also includes the EMSD logo and contact information for the Electrical Engineering Council.</p>	Grade 1 refrigerator mandatory energy label

(ix) Dehumidifiers

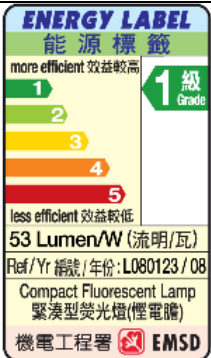
Applies to:	All dehumidifiers with a dehumidifying capacity not exceeding 35 litres per day	
Specifications:	Grade 1 of mandatory energy label (by EMSD) ²	
Effective from:	2016	
How to purchase:	All dehumidifiers in Hong Kong with a dehumidifying capacity not exceeding 35 litres per day display the mandatory energy label.	
Certifications:	 <p>The image shows a mandatory energy label for a dehumidifier. It features a scale from 1 (most efficient) to 5 (least efficient). The label indicates a Grade 1 rating. Key specifications listed include: Annual Energy Consumption (kWh/year) of 96, Dehumidifying Capacity (litres/day) of 8.75, and Energy Factor (litres/kWh) of 1.71. The label also includes the EMSD logo and contact information for the Electrical Engineering Council.</p>	Grade 1 dehumidifier mandatory energy label

(x) Washing machines

Applies to:	All washing machines with rated capacity not exceeding 7 kg	
Specifications:	<ul style="list-style-type: none"> - Grade 1 or 2 of mandatory energy label (by EMSD)², with preference on Grade 1. - Grade 1 or 2 of Grading Type Water Efficiency Label (by Water Supplies Department/WSD)², with preference on Grade 1, or similar water-saving qualification. 	
Effective from:	2016	
How to purchase:	<ul style="list-style-type: none"> - All washing machines in Hong Kong with rated capacity not exceeding 7 kg display the mandatory energy label. - The Grading Type Water Efficiency Label is common on washing machines sold in Hong Kong. Other water-saving labels are also accepted. 	
Certifications:		Grade 1 or 2 washing machine mandatory energy label
		
		Grade 1 or 2 of Grading Type Water Efficiency Label

		
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(xi) Lamps

Applies to:	<p>(a) Incandescent lamps: Incandescent lamp bulbs that are 25 watt (W) or above, including General Lighting Service (GLS) lamps (standard light bulbs), candle shape, fancy round and other decorative lamps, as well as tungsten halogen lamps (quartz lamps)</p> <p>(b) Integrated compact fluorescent lamps (CFLs)⁵</p> <p>(c) Fluorescent lamp tubes</p>	
Specifications:	<p>(a) For incandescent lamps, cease purchasing new incandescent lamps; when replacements are necessary, choose Light Emitting Diodes (LEDs), CFLs or other energy-efficient lamps.</p> <p>(b) For CFLs, choose those that have obtained Grade 1 of mandatory energy label (by EMSD)².</p> <p>(c) For fluorescent lamp tubes, use T5 tubes (or T4 tubes where applicable).</p>	
Effective from:	2012	
How to purchase:	All integrated CFLs in Hong Kong carry EMSD's mandatory energy label.	
Certifications:		Grade 1 CFL mandatory energy label



(xii) Fluorescent lamp ballasts

Applies to:	Ballasts for florescent lamp tubes
Specifications:	Electronic ballasts with the recognition-type energy label (by EMSD) ² or other power-saving qualification
Effective from:	2012
How to purchase:	The recognition label is sometimes displayed on the product package. Models registered under the labelling scheme can also be found here:

⁵ With a rated wattage up to 60W.

	http://www.emsd.gov.hk/emsd/eng/pee/eels_reg_1.shtml	
Certifications:	 The image shows a rectangular energy label. At the top, it says 'ENERGY LABEL' in blue and '能源標籤' in Chinese. Below that, it says 'Reg. No. 登記號碼: EB11-0001'. The main category is 'Electronic Ballast' with '(電子鎮流器)' in Chinese below it. At the bottom, it says '機電工程署 EMSD' with a logo.	Recognition-type energy label


(xiii) Paints

Applies to:	Architectural paints and coatings for walls and ceilings	
Specifications:	<p>Only water-based paints should be used, which should</p> <ul style="list-style-type: none"> - contain no or low VOCs⁶, i.e. VOC content for paints applied indoors and paints applied outdoors should not exceed 50g per litre (g/L) and 150g per litre (g/L) respectively, or - meet standards specified by one of the following schemes: the Hong Kong Green Labelling Scheme², China Environmental Labelling Scheme, Greenguard, Green Seal, SCS Indoor Advantage or CIC Green Product Certification. 	
Effective from:	2012	
How to purchase:	Specify requirements when inviting tender	
Certifications:		Hong Kong Green Label
		CIC Green Product Certification

(xiv) Carpets

Applies to:	Carpets to be installed in new buildings or for retrofitting	
Specifications:	<p>Carpets used should:</p> <ul style="list-style-type: none"> - contain low or no VOCs⁶, i.e. emissions of Total Volatile Organic Compounds (TVOCs) should not exceed 0.5mg/m² per hour, or - meet standards specified by one of the following schemes²: the Carpet and Rug Institute (CRI), Floorscore, Danish Indoor Climate Labelling (Denmark), European association for environmentally friendly carpets (GUT), the Hong Kong Green Labelling Scheme, China Environmental Labelling Scheme, Greenguard, Green Seal, SCS Indoor Advantage or CIC Green Product Certification. 	

⁶ Volatile Organic Compounds (VOCs) are chemicals that readily evaporate and contribute to the formation of air pollutants when released into the air indoors or outdoors. Many VOCs are classified as toxic and carcinogenic.

	- preferably be sold as individual tiles and either contain recycled materials or be recyclable.	
Effective from:	2012	
How to purchase:	Specify requirements when inviting tender	
Certifications:		CIC Green Product Certification

(xv) Sustainability-conscious food consumption

Applies to:	All activities that are either organized or paid for by CUHK; all CUHK purchases, as well as meals served in club houses, canteens or restaurants operated by the University and the Colleges
Specifications:	Shark's fins, bluefin tuna (藍鰭吞拿魚), black moss ('fat choy' 髮菜), humphead wrasse ⁷ (蘇眉), Hong Kong grouper ⁸ (紅斑) and sturgeon caviar ⁹ (鱈魚魚子醬) shall not be purchased, served, consumed or promoted.
Effective from:	2012 (shark's fin); 2013 (bluefin tuna and black moss); 2017 (humphead wrasse, Hong Kong grouper and sturgeon caviar)

(xvi) Plastic disposables

Applies to:	All catering outlets, shops and vending machines on campus; all activities or events that are either organized or paid for by CUHK
Specifications:	<ul style="list-style-type: none"> - Cease the sale or supply of plastic bottled water of 1 litre or below on campus; and - Cease the use of polyfoam meal containers in catering outlets and events on campus
Effective from:	2021

⁷ Species: *Cheilinus undulatus*



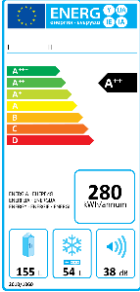

⁸ Species: *Epinephelus akaara*






⁹ Sturgeon is the common name for the 27 species of fish belonging to the family *Acipenseridae*.




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Labels and Certificates

	<p>Energy Star Label</p> <p>Energy Star is an international standard for energy efficient consumer products originating in the USA. Devices carrying the Energy Star logo, such as computer products and peripherals, kitchen appliances and buildings, generally use 20%–30% less energy than required by US federal standards. Currently, Energy Star is the most widely-recognized international energy label.</p>
	<p>Electronic Product Environmental Assessment Tool (EPEAT)</p> <p>EPEAT registration requires computers and some electronic products to meet additional standards (on top of obtaining the Energy Star label) concerning use of toxic chemicals/recycled materials and the products' end-of-life recyclability. EPEAT ratings can be bronze, silver or gold.</p>
	<p>EU energy label</p> <p>The EU Energy Label is displayed on the packaging of most domestic appliances and light bulbs sold in the EU, as required by the energy consumption labelling scheme established by an EU directive. The labelled appliance's energy efficiency is rated from A to G, with A being the most energy efficient and G being the least efficient.</p>
 <p>(This label is provided courtesy of EMSD)</p>	<p>Voluntary grading-type energy label (by EMSD)</p> <p>This energy label (under the Voluntary Energy Efficiency Labelling Scheme) provides information on the appliance's energy consumption 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.</p> <p>The label may be found on electric storage water heaters, televisions and electric clothes dryers, as well as certain room coolers, refrigerators and washing machines that are not regulated under the Energy Efficiency (Labelling of Products) Ordinance.</p>

	<p>Hong Kong Green Label (by of Green Council)</p> <p>The Hong Kong Green Label Scheme (an independent, non-profit-making and voluntary scheme for the certification of environmentally-preferable products) sets environmental standards and awards the ‘Hong Kong Green Label’ to products with environmental performance that meets these standards.</p> <p>Further information about Hong Kong Green Label standards and a list of certified products can be found at: https://www.greencouncil.org/certification</p>
 <p>Source: Energy Labels under Mandatory Energy Efficiency Labelling Scheme MEELS</p>	<p>Mandatory energy label (by EMSD)</p> <p>This energy label (under the Mandatory Energy Efficiency Labelling Scheme/MEELS) provides 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. Refrigerators displaying a Grade 1 energy label typically use 41% less energy than Grade 3 refrigerators.</p> <p>For details of MEELS, please visit the EMSD website: http://www.energylabel.emsd.gov.hk/welcome.htm</p>
 <p>Source: Energy Labels under Voluntary Energy Efficiency Labelling Scheme VEELS</p>	<p>Voluntary recognition-type energy label (by EMSD)</p> <p>This energy label (under the Voluntary Energy Efficiency Labelling Scheme) is awarded to equipment that meets minimum energy efficiency and performance requirements stipulated by EMSD.</p> <p>For a list of household appliances that can apply for this label, please visit: http://www.emsd.gov.hk/en/energy_efficiency/voluntary_energy_efficiency_labelling_scheme/scheme_documents/index.html</p>
	<p>Universal recycling symbol (many variations exist)</p> <p>This logo shows that the product can be recycled.</p>
	<p>Logo for recycled products (many variations exist)</p> <p>This logo shows that the product contains recycled materials.</p>

	<p>Resin identification codes</p> <p>These codes marked on plastic items show the types of plastic used to make the items, and allow more efficient separation and recycling of plastic waste.</p>
 <p>(Many variations of this label exist)</p>	<p>RoHS-compliant label (EU)</p> <p>The Restriction of Hazardous Substances Directive (RoHS), which restricts the use of six hazardous materials in the manufacture of various types of electronic and electrical equipment, was adopted in February 2003 by the EU. Any RoHS compliant component is tested for the presence of Lead (Pb), Cadmium (Cd), Mercury (Hg), Hexavalent chromium (Hex-Cr), Polybrominated biphenyls (PBB), and Polybrominated diphenyl ethers (PBDE). RoHS-compliant products must have less than the restricted amount of these six hazardous materials.</p> <p>The maximum permitted concentrations of the six chemicals are:</p> <ol style="list-style-type: none"> 1. Lead: 0.1% by weight 2. Mercury: 0.1% by weight 3. Cadmium: 0.01% by weight 4. Hexavalent chromium: 0.1% by weight 5. Polybrominated biphenyls: 0.1% by weight 6. Polybrominated diphenyl ether: 0.1% by weight
	<p>RoHS-compliant label (China)</p> <p>It restricts the use of Lead (Pb), Cadmium (Cd), Mercury (Hg), Hexavalent chromium (Hex-Cr), Polybrominated biphenyls (PBB), and Polybrominated diphenyl ethers (PBDE). The letter 'e' inside the green circle indicates that the product does not contain a higher-than-restricted amount of the six chemicals. If the circle is orange with a number inside, e.g. 5, it indicates that the product has restricted substances that are likely to leak out and cause harm to the environment in 5 years.</p> <p>The maximum permitted concentrations of the six chemicals are the same as those stipulated by the EU RoHS.</p>

	<p>Water Efficiency Label</p> <p>This labelling scheme has been adopted by the Water Supplies Department, and covers common plumbing fixtures and water-consuming appliances like water taps, showerheads and washing machines. Products are graded according to their water efficiency, with grade 1 (with one drop of water) products being the most water-efficient.</p> <p>A list of water fixtures registered under the scheme can be found at: http://www.wsd.gov.hk/en/plumbing-engineering/water-efficiency-labelling-scheme/registers-of-all-wels-products/index.html</p>
	<p>TCO Certified</p> <p>TCO Certified is the world’s most comprehensive sustainability certification for IT products. It helps consumers to make responsible product choices that drive the industry in a sustainable direction. Using TCO Certified also supports an organization’s efforts to reduce risk and take the next step in social and environmental responsibility.</p> <p>For details, please visit: https://tcocertified.com/</p>
	<p>GIC Green Product Certification</p> <p>The CIC Green Product Certification, owned by CIC and operated by the Hong Kong Green Building Council, is the leading building and construction products / materials certification scheme serving Hong Kong’s construction industry. The scheme takes into consideration aspects such as carbon footprint, greenhouse gases emission, energy / water efficiency, recyclability, and minimal use of irritating, harmful and toxic materials throughout a product’s life cycle. The certification scheme helps building and construction practitioners to make well-informed procurement decisions, enabling them to select products and materials with the lowest possible environmental impact.</p> <p>For details, please visit: http://cicgpc.hkgbc.org.hk/newindex.php</p>

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Recommended Products and their Specifications

In addition to the mandatory products in [Annex B](#), varieties of many other products and services are recommended for purchase. The following principles and list of products are not exhaustive, and more products and services may be added depending on market availability, stakeholders' readiness and new standards.

1. Buy Locally
 - (a) Local purchasing is a preference to buy locally produced goods and services rather than those produced farther away. It is often better for the environment, and also enhances local job creation and wealth and strengthens community cohesiveness.
 - (b) Bringing goods from afar generally requires using more energy than transporting goods locally. This generates higher carbon emissions, and also contributes to environmental pollution. Giving preference to local independent businesses also generates more jobs and wealth in the local economy.
2. Products and Services provided by the Social Enterprises
 - (a) A social enterprise or social business is defined as a business that has specific social objectives that serve its primary purpose. While social enterprises are profit-making businesses, they also seek to benefit society and the environment. Their profits are principally used to fund social programmes.
 - (b) A large number of social enterprises are conveniently listed in the [Social Enterprise Directory](#).
3. Fair Trade Products
 - (a) Fair trade is an arrangement designed to help producers in developing countries achieve sustainable and equitable trade relationships. Members of the fair trade movement add the payment of higher prices to exporters, as well as improved social and environmental standards. The movement promotes greater equity in international trading partnerships through dialogue, transparency and respect, and also serves the cause of sustainable development by offering better trading conditions to, and securing the rights of, marginalized producers and workers in developing countries.
 - (b) [Fairtrade's holistic approach](#) aims to address a number of important topics and themes.
4. Green Products

- (a) Purchasers are strongly recommended to take the following green specifications into consideration in procuring and purchasing. Green options currently available from suppliers listed on Business Unit’s or ITSC’s web pages are labelled with the text ‘**GREEN!**’ for easy identification by purchasers.
- (b) If suppliers request more details or when the degree of ‘greenness’ of two products needs to be compared, please refer to the [green specifications](#) recommended by the Environmental Protection Department (EPD).

5. List of products

Product		Specifications
A	Stationery	
A1	Pens and pencils	Whenever possible, purchase refillable pens and mechanical pencils. Replenish when required with refills instead of buying new pens and pencils ¹ Tips for purchasers: Refillable pens, mechanical pencils and refills are available in most stationery shops. Green options are available from the stationery supplier(s) listed in the Business Unit’s centralized tender.
A2	Correction fluid and thinner or correction pens	Contains no ozone-depleting chemicals (usually labelled ozone-friendly or ozone-safe) ² Tips for purchasers: Most stationery shops carry the green option. Just check the product label to make sure that it is ozone-friendly or ozone-safe. Green options are available from the stationery supplier(s) listed in the Business Unit’s centralized tender.
A3	Notebooks and notepads	Made of recycled paper ³
A4	Paper file jackets	Made of recycled paper ³
A5	Plastic file jackets	Containing recycled plastic
A6	File boxes with lock spring	Made of recycled paper ³
A7	Cartons and wrapping paper	Made of recycled paper ³

¹ Using refillable pens saves the resources required to manufacture new pens, and reduces waste generated by pen disposal. Traditional pencils have a wood barrel made of virgin hardwood; using refills in mechanical pencils reduces the number of trees that must be cut down to produce barrels.

² Some correction fluid contains 1,1,1-trichloroethane, a chemical that depletes the Earth’s ozone layer and may cause respiratory irritation. Newer types of correction fluid containing water instead of 1,1,1-trichloroethane take marginally longer to dry, but are widely available and healthier to use.

³ Apart from saving trees, recycling waste paper uses only half of the energy it takes to produce paper from wood. The production process requires far less water and generates less air pollution as well.

Product		Specifications
A8	Plastic packaging	Avoid packaging that contains chlorinated or halogenated plastics ⁴ . Used packaging should be able to be recycled by local recycling systems.
A9	Plastic films and sheets	Contains recycled materials Contains no intentionally-added heavy metals. The product should not contain intentionally-added lead, mercury, cadmium and hexavalent chromium, except when added as the result of using recycled content and not exceeding 100 ppm by weight.
B Office equipment and electrical appliances		
B1	Servers	Energy Star label or other power-saving qualification ⁵ Tips for purchasers: Most servers in ITSC's tender are Energy Star-labelled.
B2	Multifunction printers	Energy Star label, recognition-type energy label (by EMSD), or other power-saving qualification ⁵ . Models registered under EMSD's labelling scheme can be found here: http://www.emsd.gov.hk/emsd/eng/pee/eels_reg_1.shtml
B3	Vending machines	Energy Star power-saving qualification (or equivalent) ⁵ or install external 'vending miser' devices or similar power-saving devices
B4	Storage type electric water heaters	Grade 1 of mandatory energy label (by EMSD), or other power-saving qualification ⁵ (NB. Applies only to electrical water heaters with storage capacity not exceeding 300 litres).
B5	Television	Energy Star label, Grade 1 or 2 mandatory energy label (by EMSD), or other power-saving qualification ⁵
B6	Shredder	Comply with RoHS ⁶ ; plastic parts should be manufactured without chlorinated paraffins flame retardants; component parts should not contain halogenated substances
B7	Dryer	Grade 1 of voluntary grading-type energy label (by EMSD) ⁵
B8	Electric fan	With a power factor of 0.8 or more, or with Energy Star label; comply with RoHS ⁶
C Printed matters		

⁴ Examples of chlorinated / halogenated plastics: Chlorinated Polyethylene (CPE), Chlorinated Polyvinyl Chloride (CPC), Chlorinated Polyvinyl Chloride (CR), Chlorosulfonated Polyethylene (CSPE/CSM), Polyvinylchloride (PVC)

⁵ For more information on energy labels/environmental labels, please refer to [Annex C](#).

⁶ The Restriction of Hazardous Substances Directive (RoHS) was adopted in February 2003 by the EU. It restricts the use of six hazardous materials—Lead (Pb), Cadmium (Cd), Mercury (Hg), Hexavalent chromium (Hex-Cr), Polybrominated biphenyls (PBB) and Polybrominated diphenyl ethers (PBDE)—in the manufacture of various types of electronic and electrical equipment. For more information on energy labels/environmental labels, please refer to ([Annex C](#)).

Product		Specifications
C1	Printed matters (envelopes, certificates, letterheads, etc.)	Printed on 100% recycled paper ³ Tips for purchasers: Many printing companies can print stationery using recycled paper. The Business Unit provides tender prices for selected printed matter printed on recycled paper.
C2	Printing ink	Containing soy oil or vegetable oils ⁷ Tips for purchasers: To select printing companies that use soy ink, you can ask for certificates such as the SoySeal authorized by the American Soybean Association.
C3	Name card printing	Printed on 100% recycled paper ³ with inks containing soy oil or vegetable oils ⁷ Tips for purchasers: Many printing companies can print name cards using recycled paper and eco-friendly ink. The Business Unit provides reference prices from printing companies that use recycled paper and eco-friendly ink.
D	Plastic bags and containers	
D1	Garbage bags	Biodegradable ⁸ or made of plastic/other materials with recycled content Tips for purchasers: Biodegradable garbage bags are available in most supermarkets. For bulk orders, the supplier(s) in the Business Unit's centralized tender offers biodegradable bags at tender prices.
D2	Food and drink containers	Biodegradable ⁹ or made of plastic/other materials with recycled content Use reusable food and drink containers and avoid using disposables whenever possible.
D3	Plastic shopping bags (for souvenirs)	Look for at least one product declaration below: <ul style="list-style-type: none"> • Contain recycled plastic content • Biodegradable
E	Toiletries and cleaning products	

⁷ During paper recycling, soy and vegetable inks can be removed more easily than regular ink from paper, which saves treatment costs during recycling. Inks that contain certain types of vegetable oils (e.g. soy oil) also emit less harmful VOCs during printing.

⁸ Traditional plastic bags take hundreds of years to decompose and create huge waste treatment problems in the landfill. Biodegradable bags should take only a few months to decompose in landfill conditions and turn into non-toxic carbon dioxide, water and biomass.

⁹ Biodegradable food and drink containers can be made of materials like bagasse (sugar cane pulp) or corn. However, these usually do not decompose in a landfill's anaerobic environment. They do, however, decompose in a compost pile.

Product		Specifications
E1	Toilet paper	Made of 100% recycled ³ , non-chlorine bleached ¹⁰ paper
E2	All-purpose cleaner	Biodegradable ¹¹ , preferably phosphate-free ¹² and non-toxic; all-purpose cleaner with Hong Kong Green Label preferred. Cleaning agents with labels like Ecologo, Green Seal or U.S. EPA Design for the Environment are also preferred.
E3	Lavatory cleansing powder or detergent	Biodegradable ¹¹ , preferably phosphate-free ¹² and non-toxic Cleaning agents with labels like Ecologo, Green Seal or U.S. EPA Design for the Environment are also preferred.
E4	Soap toilet liquid and dishwashing liquid	Biodegradable ¹¹ , preferably phosphate-free ¹² and non-toxic Cleaning agents with labels like the China Environmental Label, Ecologo, Green Seal or U.S. EPA Design for the Environment are also preferred. Tips for purchasers: Available at large supermarkets. Other desirable specifications to look for include 'with neutral pH', 'does not contain chlorine' and 'plant-derived'.
F	Furnishing and construction	
F1	Multi-purpose construction adhesives	Comply with Hong Kong EPD VOC regulation limit for adhesives; phthalates (esters of 1,2 benzenedicarboxylic acid), alkylphenol ethoxylates and halogenated solvents have not been used to formulate the product or added to the product.
F2	Flooring materials	No or low VOCs ¹³ , i.e. VOC discharge rate should not exceed 500µg/m ² per hour; preferably containing recycled materials Flooring materials with Greenguard, Floorscore or other similar certification are also preferred.
F3	Building materials	Contain recycled materials

¹⁰ The traditional method of bleaching paper with chlorine creates dioxins. These chemicals can cause cancer. Dioxins can be absorbed into human bodies when people come in contact with paper products, or when people consume water or produce contaminated by dioxins discharged into rivers by paper mills. It is therefore important to ask for paper bleached using new chlorine-free technologies.

¹¹ Biodegradable cleaning agents cause less water pollution as they are less toxic and can be broken down by bacteria relatively quickly.

¹² Conventional dishwashing formulas contain phosphate, which becomes a nutrient for certain kinds of algae when it enters the water and promotes excessive algal growth. The algae then die and decompose in the water. Decomposing plant matter in large quantities consumes all the oxygen in the water, killing aquatic life and causing water quality to decline.

¹³ Volatile Organic Compounds (VOCs) are chemicals that readily evaporate and contribute to the formation of air pollutants when released into the air indoors or outdoors. Many VOCs are classified as toxic and carcinogenic.

Product		Specifications
F4	Walkways, patios and driveways	Made of a permeable substance or have a permeable structure ¹⁴ ; contain recycled materials
F5	Adhesives and sealants	<p>Comply with the VOC content limits on regulated adhesives stipulated in the Air Pollution Control (Volatile Organic Compounds) Regulation of Hong Kong</p> <p>Contains none of the substances regulated in the Montreal Protocol on Substances that Deplete the Ozone Layer¹⁵</p> <p>Contains no more than 0.01% by wet weight of formaldehyde</p> <p>Contains no more than 0.5% by wet weight of the sum total of aromatic compounds, which include benzene, toluene, xylenes, and ethylbenzene</p>
F6	Partition screen, workstation panel	<p>All wood panels shall be of Class E1 under EN13986 in respect of formaldehyde emission, and the requirements are as follows:</p> <ul style="list-style-type: none"> • MDF (Medium-density fibreboard) board: release ≤ 8 mg/100g (by test method EN120) • Plywood/solid wood/other panels: release ≤ 0.124 mg/m³ air (by test method EN 717-1) <p>Contain recycled or waste wood</p>
F7	Timber doors	<p>All wood panels shall be of Class E1 under EN13986 in respect of formaldehyde emission.</p> <p>Contains none of the following heavy metals or their compounds: arsenic, cadmium, copper, lead, mercury</p> <p>Manufactured without the use of the following additives: elemental chlorine, fluorine, PCP (pentachlorophenol) and tar oils containing benzo(a)pyrene</p> <p>Contains none of the following flame retardant formulated components: polybrominated biphenyl (PBB), polybrominated diphenyl ether (PBDE) or short-chain chlorinated paraffin</p>
F8	Windows	<p>Thermal insulation capacity of the glass should be equal to or less than the heat transfer coefficient (U-value) of 1.4 W/m²K</p> <p>Components not formulated with the following substances or their compounds: arsenic, cadmium, hexavalent chromium, lead, mercury, organic tin, phthalates</p>

¹⁴ Permeable paving materials allow water to percolate into the soil. This helps prevent flooding during heavy rains and nourishes soil organisms and tree roots.

¹⁵ Particularly CFCs, HCFCs, 1,1,1-trichloroethane and carbon tetrachloride.

Product		Specifications
F9	Wood panels	<p>Content of free formaldehyde in adhesives used in the product shall not exceed 0.5% by weight of the adhesive</p> <p>All wood panels shall be of Class E1 under EN13986 in respect of formaldehyde emission</p> <p>Contains none of the following heavy metals or their compounds: arsenic, cadmium, copper, lead, mercury</p> <p>Manufactured without the use of the following additives: elemental chlorine, fluorine, PCP (pentachlorophenol) and tar oils containing benzo(a)pyrene</p> <p>Contains none of the following flame retardant formulated components: polybrominated biphenyl (PBB), polybrominated diphenyl ether (PBDE) or short-chain chlorinated paraffin</p>
F10	Ceramic tiles	<p>Content of elements used in the glazes shall not exceed the following specific limits:</p> <ul style="list-style-type: none"> • Antimony: 0.25% in weight of the glazes • Cadmium: 0.1% in weight of the glazes • Lead: 0.5% in weight of the glazes
F11	Varnish and wax polish	<p>Comply with the VOC content limits on regulated adhesives stipulated in the Air Pollution Control (Volatile Organic Compounds) Regulation (Laws of Hong Kong, Cap. 311, subsidiary legislation)</p> <p>Contains none of the substances regulated in the Montreal Protocol on Substances that Deplete the Ozone Layer¹⁵</p> <p>Contains no more than 0.01% by wet weight of formaldehyde</p> <p>Contains no more than 0.5% by wet weight of the sum total of aromatic compounds, which include benzene, toluene, xylenes, and ethylbenzene</p>
F12	Chair	<p>Wood material used should contain at least 40% recycled/waste wood, or has obtained sustainable forest management certification such as FSC, PEFC or equivalent</p> <p>All wood panels shall be of Class E1 under EN13986 in respect of formaldehyde emission, and the requirements are as follows:</p> <ul style="list-style-type: none"> • MDF board: release ≤ 8 mg/100g (by test method EN120) • Plywood/solid wood/other panels: release ≤ 0.124 mg/m³ air (by test method EN 717-1)

Product		Specifications
		<p>Plastic components contain none of the following heavy metals and hazardous substances: lead, chromium, cadmium, mercury, phthalates, halogenated organic substances</p> <p>The formaldehyde emission of foam synthetic resin used in cushioning materials should be 30 mg/kg (30ppm) or less</p> <p>The sum of lead, cadmium, mercury, and hexavalent chromium included in the paint used on the surface of the chair should be below the weight percentage of 0.1 (1,000 mg/kg)</p>
F13	Steel filing cabinet	<p>Colour coating should not contain:</p> <ul style="list-style-type: none"> • Formaldehyde or halogenated solvent • Any heavy metallic substances such as mercury, lead, cadmium, chromium or their oxide • Aromatic hydrocarbon including solvents of thinner toluene or xylene • Volatile organic compounds (VOCs) over 250 g/litre <p>The compound of 1,1,1-trichloroethane should not be used for the surface preparing process</p>
F14	Metal furniture	<p>Colour coating should not contain:</p> <ul style="list-style-type: none"> • Formaldehyde or halogenated solvent • Any heavy metallic substances such as mercury, lead, cadmium, chromium or their compounds <p>Plastic components should contain none of the following heavy metals and hazardous substances: lead, chromium, cadmium, mercury, phthalates, halogenated organic substances</p> <p>It should be possible to separate the metals (except metals used in surface treatments) from other materials in the product without the use of special tools</p>
F15	Wooden furniture (for indoor use)	<p>Wood material used should contain recycled/waste wood, or wood which has obtained sustainable forest management certification such as FSC, PEFC or equivalent</p> <p>All wood panels should be of Class E1 under EN13986 in respect of formaldehyde emission, and the requirements are as follows:</p> <ul style="list-style-type: none"> • MDF board: ≤ 8 mg/100g of free formaldehyde content (by test method EN120) or release ≤ 0.124 mg/m³ air (by test method EN 717-1) • Plywood/solid wood/other panels: ≤ 4 mg/100g of free formaldehyde content (by test method EN 120) or release ≤ 0.124 mg/ m³ air (by test method EN 717-1)

Product		Specifications
F16	Sofa	<p>Wood material used should contain recycled/waste wood, or wood which has obtained sustainable forest management certification such as FSC, PEFC or equivalent</p> <p>Requirements of cushioning and filling materials:</p> <ul style="list-style-type: none"> • Halogenated flame retardants should not be added • Organic bleaching agent should not be used in production • Dye stuff should not contain lead, tin, cadmium, hexavalent chromium and mercury <p>Plastic components should contain none of the following heavy metals and hazardous substances: lead, chromium, cadmium, mercury, phthalates, halogenated organic substances</p>
F17	Mattress	<p>The latex foam used should meet the following requirements:</p> <ul style="list-style-type: none"> • Heavy metals: copper < 2 ppm, chromium, nickel < 1 ppm, arsenic, lead, antimony, cobalt < 0.5 ppm, cadmium < 0.1 ppm, mercury < 0.02 ppm • Extractable formaldehyde: < 30 ppm • VOC: < 0.5 mg/m³ • Metal complex dyes based on copper, lead, chromium or nickel should not be used • Chlorophenols (salts and esters): < 0.1 ppm; mono, di-chlorinated phenols (salts and esters) < 0.1 ppm • Butadiene: < 1 ppm • Nitrosamines: < 0.001 mg/m³ <p>The following requirements should be met for Polyurethane (PUR) foam:</p> <ul style="list-style-type: none"> • Heavy metals: copper < 2 ppm, chromium and nickel < 1 ppm, arsenic, lead, antimony and cobalt < 0.5 ppm, cadmium < 0.1 ppm, mercury < 0.02 ppm • Extractable formaldehyde: < 30 ppm • VOC: < 0.5 mg/ m³ • Metal complex dyes based on copper, lead, chromium or nickel should not be used • CFCs, HCFCs, HFCs, methylene chloride should not be used as blowing agents • Tin in organic form (tin bonded to a carbon atom) should not be used <p>Glues used should not contain benzene and chlorobenzenes</p>

Product		Specifications
		Cushioning material should not contain formaldehyde, aromatic hydrocarbons, phthalates, organic tins, cadmium, lead, hexavalent chromium or mercury, or their compounds
G	Lighting systems	
G1	Light Emitting Diodes (LEDs)	When incandescent lamps and compact fluorescent lamps (CFLs) need to be replaced, choose Light Emitting Diodes (LEDs) whenever applicable
G2	Solar-powered lighting systems	Use solar-powered lighting systems whenever applicable
H	Batteries	
H1	Batteries	Use rechargeable batteries whenever possible ¹⁶ ; only use alkaline batteries if they contain no mercury and no cadmium ¹⁷ Tips for purchasers: Available at most supermarkets. Check the information on the package to see the product composition ('no mercury', 'no cadmium').
I	Water Fixtures	
I1	Water taps	Have water-saving performance equivalent to Grade 1 under the Water Efficiency Labelling Scheme (WELS) ⁵ , or have aerators installed
I2	Showerheads	Have water-saving performance equivalent to Grade 1 under the Water Efficiency Labelling Scheme (WELS) ⁵
I3	Toilets	Have water-saving features such as waterless flushing or dual flush
J	Transportation	
J1	Diesel fuel	Use diesel with a biodiesel content of at least 5%
J2	Vehicles	Use hybrid or electrical vehicles
J3	Lubricating oil	Contains recycled content
K	Landscaping	
K1	Landscaping plants	Use species which help feed, sustain, and shelter birds and beneficial insects, and/or are drought-tolerant and require little or no watering and application of fertilizers and pesticides
K2	Fertilizer and soil improver	Maximize use of compost made with landscaping/food waste
K3	Pesticides	Non-toxic, non-flammable, biodegradable and odourless
K4	Irrigation systems	Have water-saving features

¹⁶ Rechargeable batteries are costlier to use initially (due to the higher cost of each cell and the cost of the charger), but with technological improvements, rechargeable batteries like Rechargeable Alkaline Manganese (RAM) and low self-discharge NiMH can retain their charge for one year or more, and can be recharged up to 1500 times, making them a more economical and resource-saving choice in the long run. Rechargeable batteries can also be recycled at the end of their useful lives.

¹⁷ If alkaline batteries must be used, varieties without mercury and cadmium are available on the market, reducing contamination caused during production and after disposal.

Product		Specifications
K5	Garden Machinery (lawn mowers)	The declared sound intensity level should not exceed the limit of 100 dB(A) during operation; comply with RoHS ⁶ The metal content in the individual battery cell should be lower than the values shown below: Arsenic ≤ 10.0 ppm, Cadmium ≤ 5.0 ppm, Lead ≤ 5.0 ppm and Mercury < ≤ 0.1 ppm
L	Food and drink	
L1	Food	Give preference to products/ingredients grown or manufactured in Hong Kong or adjacent Guangdong Province ¹⁸ . Fair trade products ¹⁹ and vegetarian options ²⁰ should be made available in each dining area, if possible
L2	Seafood	Seafood in the ‘Recommended’ list of the WWF Seafood Guide ²¹ Seafoods included in the ‘Think Twice’ and ‘Avoid’ lists are less sustainably produced and should be avoided

¹⁸ To reduce use of packaging during transport and carbon emissions during transportation.

¹⁹ Apart from benefitting disadvantaged communities by guaranteeing relatively stable prices for produce, fair trade can usually benefit the environment by preventing local communities from destroying local natural resources for short-term gain.

²⁰ A vegetarian diet helps alleviate pressure on the world’s overfished oceans and also reduces carbon emissions. The livestock industry is one of the world’s largest carbon emission sources. Adopting a vegetarian diet every other day can help prevent 2,400 kg of carbon emissions/person/year. In comparison, replacing a 700–900W air conditioner with an electric fan for a year prevents 1,560kg of carbon emissions.

²¹ The WWF Seafood Guide assesses wild-caught seafood species with regard to whether the fishery is sustainably managed, and whether fishing methods destructive to the environment are used; farmed seafood is assessed with regard to the farmed species’ susceptibility to disease (which leads to higher input, lower output and more pollution), pollution generated, the use of medicine and the origin of the species’ juveniles.

Social Responsibility and Sustainable Development Office

Sustainable Procurement Guidelines

Major Purchasers and Tender Callers who Support Sustainable Procurement

1. A number of major purchasers and tender callers in the University have been pioneers of green purchasing since 2012. These include:

Business Unit, Finance Office
Campus Development Office
Estates Management Office
Information Technology Services Centre
Transport Office

2. These offices are further committed to sustainable procurement and the identification of sustainable products and services of high quality which units can purchase at reasonable prices.
3. Major purchasers and tender callers shall update the Social Responsibility and Sustainable Development Office (SRSDO) on new initiatives taken in support of sustainable procurement. Their current initiatives include:

3.1 Business Unit, Finance Office

- (a) Stationery and printing
 - Investigate the availability and prices of environmentally-friendly stationery.
 - Label the green options currently available in the centralized tender; continue to secure tender prices or obtain reference prices for these items.
 - Investigate the applicability of using packaging materials made of recycled paper to package the souvenirs at its souvenir stand.
 - Offer green printing options (using recycled paper and soy/vegetable ink) in the centralized printed matters tender.
- (b) Office equipment
 - Invite tenders for environmentally-friendly photocopiers.
- (c) Plastic bags and toiletries
 - Invite tenders for biodegradable plastic bags and toilet paper made of unbleached recycled paper.

3.2 Campus Development Office

- (a) Electrical appliances
 - Install room air conditioners that have attained Grade 1 of the mandatory energy label for new campus buildings.

- (b) Furnishing and building materials
 - Install low-VOC carpets that meet EPD standards in new buildings.
 - Use water-based paints (which emit less VOCs than solvent-based paints) in building projects.
- (c) Lighting systems
 - Install low-VOC carpets that meet EPD standards in new buildings.
 - Use Compact Fluorescent Lamps (CFLs), Light Emitting Diodes (LEDs), T5 fluorescent lamps or other energy-efficient lighting systems in place of incandescent lamps in new buildings, whenever possible.
 - Purchase compact fluorescent lamp ballasts with the EMSD recognition-type label.
 - Install solar-powered lighting systems whenever possible and economical.
- (d) Water
 - Use water taps and showerheads that meet water-saving green specifications, where applicable.
 - Purchase toilets with water-saving dual-flush function for new buildings.

3.3 Estates Management Office

- (a) Electrical appliances
 - Install air conditioners that have attained Grade 1 of the mandatory energy label in retrofit works.
 - Purchase refrigerators that have obtained Grade 1 of the mandatory energy label (by EMSD) for all staff residences.
- (b) Plastic bags
 - Use biodegradable garbage bags whenever possible and economical.
- (c) Furnishing and building materials
 - Use road pavers and building materials that contain recycled materials whenever possible and economical.
 - Use water-based paints (which emit less VOCs than solvent-based paints) for walls and ceilings in retrofit works.
 - Install carpets certified by the Carpet and Rug Institute for low VOC-emissions in retrofit works.
- (d) Lighting systems
 - Use Light Emitting Diodes (LEDs), T5 fluorescent tubes or other energy-efficient lighting systems in place of incandescent lamps in retrofit works, whenever possible.
 - Purchase compact fluorescent lamp ballasts with the EMSD recognition-type label for retrofit works.
 - Install solar-powered lighting systems whenever possible and economical.

- (e) Water
 - Use water taps and showerheads that meet water-saving green specifications, where applicable.
 - Purchase toilets with water-saving dual-flush function for new buildings and retrofit works.
- (f) Landscaping
 - Plant low-maintenance plants or ecologically-beneficial plants whenever appropriate and economical.
 - Use soil improver made with composted landscaping waste and kitchen waste.
- (g) Transportation
 - Use electric vehicles whenever possible and economical
- (h) Others
 - Install renewable energy facilities on campus

3.4 Information Technology Services Centre

- Invite tenders for desktop and laptop computers, LCD monitors and laser printers that meet the required green specifications.
- Give preference to servers that meet the green specifications in future tender invitations.

3.5 Transport Office

- Examine the feasibility of modifying future tenders to require outsourced buses to adopt at least 5% biodiesel.
- Introduce green vehicles into the University's car fleet.