香港科技大學
THE HONG KONG UNIVERSITY OF
SCIENCE AND TECHNOLOGY

HKUST Sustainable Purchasing Requirements
For Suppliers and Contractors

The Hong Kong University of Science and Technology (HKUST) has an ambitious target to achieve net-zero carbon by 2045, reduce waste to the landfill, and promote sustainable and healthy lifestyles within our community. Therefore, we emphasize green procurement practices of goods and services to help achieve these ambitious goals.

General Considerations

Tenderers should be aware that HKUST has adopted a life cycle thinking approach as standard practice in evaluating procurement, meaning that in addition to lowest costs, we also look for costs (or savings) over time, environmental impacts along the supply chains, green certifications, and end-of-life impacts. For more information on life cycle approaches, please visit the HKUST Life Cycle Lab.

Requirements

Life Cycle Costing

If you are supplying / upgrading energy-consuming and water-consuming products and systems, your tender will be reviewed based on cost factors that will be incurred over the life of the product or system. As such, vendors are required to provide (in addition to the purchase cost):
- Purchase / acquisition price;
- Usable life span of the product (in years);
- Estimated operations costs, e.g., energy or water consumption (annually);
- Maintenance, e.g., replacement, planned maintenance and management cost (annually); and
- End-of-life costs / residual value.

Tenderers should also declare whether they will take back the items at the end of their life for recycling or repurposing.

Examples of energy-consuming and water-consuming products and systems include hot water system, interior lighting system, air-conditioning system, sanitary fittings etc.

Green Product Labelling and Certifications

A. Energy Consuming Appliances / Equipment

All energy-consuming electrical appliances and equipment shall meet EMSD Energy Label Grade 1 rating under EMSD's Mandatory Energy Efficiency Labelling Scheme or other equivalent international schemes such as ENERGY STAR, TCO Certified, Blue Angel, EPEAT and/or ACT-labelled registered products. Devices covered include room air conditioners, refrigerating appliances, compact fluorescent lamps (CFLs), washing machines, dehumidifiers, televisions, storage type electric water heaters and induction cookers.

B. Water Consuming Appliances / Equipment

All water-consuming sanitary fittings and plumbing fixtures shall meet Water Suppliers Department (WSD) Water Efficiency Labelling Scheme (WELS) Grade 1 rating or other equivalent international schemes. Devices shall include showers, water taps, washing machines, urinal equipment, flow controllers and water closets.

C. Timber / Composite Timber Products

All timber and composite timber products shall be from sustainable sources (has certification from Forest Stewardship Council, American Forest and Paper Association or Programme for the Endorsement of Forest Certification, China FSC National Forest Stewardship Standard or equivalent) / recycled timber (reused from other sites).

D. Cleaning and Janitorial Paper Products

All cleaning and janitorial paper products shall meet one or more of the following criteria:
- Hong Kong Green Label Scheme;
- US EPA Design for the Environment;
- China Environmental Label;
- Blue Angel labelled (German Federal Environment Agency);
- Cradle to Cradle Certified;
- ECOLOGO certified (UL Environment);
- EU Ecolabel;
- Forest Stewardship Council (FSC) certified;
- Good Environmental Choice Australia (GECA) certified;
- Green Seal certified;
- Nordic Swan labelled (Nordic Ecolabelling Board);
- U.S. EPA Safer Choice labelled.

Other multi-criteria sustainability standards and ISO Type 1 ecolabels are acceptable if developed or administered by Global Ecolabelling Network and/or ISEAL Alliance member organizations.

Cleaning products include general purpose bathroom, glass and carpet cleaners; degreasing agents; biologically-active cleaning products (enzymatic and microbial products); floor-care products (e.g., floor finish and floor finish strippers); hand soaps and hand sanitizers, disinfectants, and metal polish and other specialty cleaning products. Janitorial paper products include toilet tissue, tissue paper, paper towels, hand towels, and napkins.

E. Office Paper Purchase

All office paper products shall have post-consumer recycled, agricultural residue, and/or Forest Stewardship Council (FSC) or Program for the Endorsement of Forest Certification (PEFC) certified content.

F.   Electronic Products

All electronic products shall be EPEAT registered, third party certified under a multi-attribute sustainability standard or ISO Type 1 ecolabel developed/administered by a Global Ecolabelling Network or ISEAL Alliance member organization (e.g., Blue Angel, TCO Certified, UL Ecologo), AND/OR labelled under a single-attribute standard for electrical equipment (e.g., ENERGY STAR, EU Energy A or higher, or local equivalent). Included are desktop and notebook/laptop computers, displays, thin clients, tablets/slates, televisions, mobile phones, and imaging equipment (copiers, digital duplicators, facsimile machines, mailing machines, multifunction devices, and printers and scanners). Specialized equipment that EPEAT does not register may be excluded.

The products shall comply with Restriction of Hazardous Substances (RoHS) requirements for hazardous substances including lead.

All lighting fixtures must be mercury-free, unless a unique situation calls for a specialty bulb. In such a case, an exception must be made in writing and approved by the Sustainable Operations Executive Committee (OpCo).

G.   Paint, Adhesives, Furniture and Furnishings

Tenderers shall provide declaration that there are no materials, chemicals or elements in their products or systems that are listed in (1) the latest Living Building Challenge (LBC) Red List; or (2) banned items under Hong Kong's ordinances (eg. asbestos, lead, added formaldehyde, toxic heavy metals, HCFCs, CFCs, halogenated flame retardants).

All materials may not have VOC emissions which exceed levels stated in South Coast Air Quality Management District (SCAQMD) for Adhesives and Sealants or the California Air Resources Board (CARB), Suggested Control Measure (SCM) for Architectural Coatings, ANSI/BIFMA e3-2011 Furniture Sustainability Standard or equivalent standards.

Strong Preferences

Atmosphere Impact

A.   Global Warming Potential and Ozone Depleting Substances

For materials containing refrigerants, there shall be no use of products that contain CFCs or HCFCs. Preference will be given to suppliers who adopt refrigerants or tracer gases with Global Warming Potential under 5000 (100 year time horizon). For other materials, there shall not be any use of products that use ozone depleting substances in their manufacture, composition or use.

Life Cycle Assessment

B.   Life Cycle Assessment

Preference will be given to suppliers who can provide the Life Cycle Assessment or Environmental Product Declarations that had been verified by a Third Party. At a minimum, perform Cradle to Site assessment of the products / systems which includes Stages A1 to A5 (ref: ISO 14044), from raw material extraction to construction and installation process.

C.   Strategies to Minimize Environmental Impact

Preference will be given to suppliers who adopt the following strategies to minimize their life cycle environmental impact.

- Adopts pre-consumer and/or post-consumer recycled contents and/or store carbon dioxide as part of resource extraction / production;
- Adopts renewable energy, energy-efficient, water-efficient, low-waste and/or low-carbon as part of their manufacturing processes;

- Has a lower environmental impact compared to its competitors during use phase (eg. more efficient energy label or water efficiency grade);
- Provides maintenance / repair during use phase;
- Provides end of life collection; and
- Enables product / system (design / installation method / material use) to be recycled at the end of life.

Preference will be given to suppliers who can provide at least 1 or more local or international healthy product labelling / product certification that had been verified by a Third Party, as part of the tender submission. This shall be relevant to the product / system nature. This may include but not limited to the following:
- Declare Label (by International Living Future Institute);
- Health Product Declaration (HPD) included in HPD database; and
- Cradle to Cradle Material Health Gold or Platinum Label.

H.   Environmental Labelling / Product Certification

Preference will be given to suppliers who can provide at least 1 or more local or international environmental labelling / product certification that had been verified by a Third Party, as part of the tender submission. This shall be relevant to the product / system nature. This may include but not limited to the following:
- Construction Industry Council (CIC) Green Product Certification; and
- Carbon Labelling Scheme / HKGBC Green Product Accreditation and Standard (HK G-Pass).

Annex A: Green Procurement Checklist to be included in Tender Submission

No.	Checklist	Yes	No	N/A
Mandatory Items				
M1	Energy-consuming & water-consuming products / systems Please confirm that you have provided a product-specific or system-specific Life Cycle Cost Analysis for all energy-consuming and water-consuming products and systems.			
M2	Environmental Impact: Global Warming Potential For materials containing refrigerants, please confirm that no CFCs and HCFCs is used.			
M3	Environmental Impact: Global Warming Potential For other materials, please confirm that no ozone depleting substances is used in their manufacture, composition or use-phase.			
M4	Energy Consuming Appliances / Equipment Please confirm that your energy-consuming electrical appliances and equipment meets EMSD Energy Label Grade 1 rating or other equivalents.			
M5	Water Consuming Appliances / Equipment Please confirm that water-consuming sanitary fittings and plumbing fixtures shall meet Water Suppliers Department (WSD) Water Efficiency Labelling Scheme (WELS) Grade 1 rating or other equivalents.			
M6	Timber / Composite Timber Products Please confirm that timber and composite timber products are sustainability sourced (has certification from FSC, PEFC or equivalent) or is recycled.			
M7	Cleaning and Janitorial Paper Products Please confirm that cleaning and janitorial paper products meets the criteria of Hong Kong Green Label Scheme, Green Seal or equivalent.			
M8	Office Paper Purchase Please confirm office paper products shall have post-consumer recycled, agricultural residue, and/or FSC or PEFC certified content.			
M9	Electronic Products Please confirm that electronic products shall be EPEAT registered, ENERGY STAR, EU Energy A or higher, or equivalent.			
M10	Electronic Products Please confirm that the products shall comply with RoHS requirements for hazardous substances including lead.			
M11	Electronic Products Please confirm that all lighting fixtures must be mercury-free, unless a unique situation calls for a specialty bulb.			
M12	Paint, Adhesives, Furniture and Furnishings Please confirm that there are no materials, chemicals or elements in your products or systems that are listed in (1) the latest Living Building Challenge (LBC) Red List; or (2) banned items under Hong Kong's ordinances.			
M13	Paint, Adhesives, Furniture and Furnishings			

No.	Checklist	Yes	No	N/A
	Please confirm that the VOC emissions in your product or systems do not exceed levels stated in SCAQMD, CARB, SCM or equivalent standards.			
	Preferred Items			
P1	Environmental Impact: Global Warming Potential Please confirm that refrigerant with low Global Warming Potential under 5000 (100 year time horizon) is used.			
P2	Life Cycle Assessment Please confirm that you have provided a Life Cycle Assessment or Environmental Product Declarations that had been verified by a Third Party.			
P3	Strategies to Minimize Environmental Impact Please confirm that you have adopted pre-consumer and/or post-consumer recycled contents and/or store carbon dioxide as part of resource extraction / production			
P4	Strategies to Minimize Environmental Impact Please confirm that you have adopted renewable energy, energy-efficient, water-efficient, low-waste and/or low-carbon as part of your manufacturing processes.			
P5	Strategies to Minimize Environmental Impact Please confirm that your product has a lower environmental impact compared to its competitors during use phase (eg. more efficient energy label or water efficiency grade).			
P6	Strategies to Minimize Environmental Impact Please confirm that your company or partner service provider can provide maintenance / repair during use phase.			
P7	Strategies to Minimize Environmental Impact Please confirm that your company or partner service provider can provide end of life collection.			
P8	Strategies to Minimize Environmental Impact Please confirm that the design / installation method / material use of the product allows recycling at the end of life.			
P9	Paint, Adhesives, Furniture and Furnishings Please confirm that you have provided at least 1 or more local or international healthy product labelling / product certification that had been verified by a Third Party.			
P10	Environmental Labelling / Product Certification Please confirm that you have provided at least 1 local or international environmental labelling / product certification that had been verified by a Third Party eg. CIC, HK G-Pass.			

Annex B: Contractor Sustainability Performance

<u>Contractor Sustainability Performance</u>

HKUST is committed to creating a sustainable campus through the reduction of wastes, conservation of natural resources, and the protection of our community be creating a safe and healthy work environment. HKUST is also committed to meeting the target of net-zero greenhouse gas emissions by 2045.

HKUST will prioritize Contractors based on these sustainability performance criteria. The questions below are threshold questions for all Contractors. Additional detailed questions may be included in each specific tender.

Question	Answer (Yes/No)	Further Comments/Explanation
Does your company produce an annual ESG (Environmental, Social, and Governance) report? If yes, please show evidence.		
Does your company track Scope 1 and Scope 2 greenhouse gas emissions? If yes, please provide information on your most recent inventory.		
Has your company committed to the Science Based Targets initiative (SBT) to ensure greenhouse gas reductions in line with the Paris Climate Agreement? If yes, please show evidence.		
Are all of your employees are paid wages that are considered to be at or above Hong Kong's Living Wage calculations? If yes, please provide evidence.		
Does your company track environmental impacts from your supply chain using Life Cycle Analysis (LCA) methods? If yes, please provide evidence.		