GREENER CAMPUS AND WORKPLACE

Environmental sustainability is at the core of the University's commitment to provide quality campus and related services. We strive to minimise our carbon footprint in campus development, campus management and office operations. Our six environmental protection principles provide guidance to our management approach and decision-making process.

Environmental concerns in regard to our daily operations in construction sites, university management and office are addressed with their respective guidelines and procedures which provides guidance on the incorporation of environmental considerations. There were no significant fines or sanctions levied for non-compliance with environmental laws and regulations in the reporting period.

OUR ENVIRONMENTAL PROTECTION PRINCIPLES

Integrate into Operations

To integrate environmental considerations in the university development and property management operations.

Conserve Resources

To prevent pollution and to protect the environment by conserving natural resources and minimizing waste

Legal Compliance

To comply with all legal requirements and related obligations on environmental protection where applicable

Continuous Improvement

To seek and implement continuous environmental improvements through establishing clear objectives and continual improvement of the operation system

Engage Stakeholders

To encourage co-operation from our staff and students in environmental protection and collaborate with them in the promotion and implementation of good environmental management practices

Raise Awareness

To enhance environmental awareness through internal and external communication of our policy and knowledge sharing with our staff, students and other stakeholders

GREEN BUILDINGS

HSUHK is the first higher education institution in Hong Kong awarded the BEAM Plus final 'Platinum' rating for new buildings. The BEAM Plus (version 1.1) final 'Platinum' rating was granted for S H Ho Academic Building, Lee Shau Kee Complex, Lee Quo Wei Academic Building while the BEAM Plus (version 1.2) final 'Platinum' rating was granted for the HSUHK Jockey Club Residential Colleges. BEAM Plus (version 2.0) provisional 'Platinum' rating was also granted for Creative Humanities Hub, which was completed and opened on 20 March 2024.

The University also achieved Certification of Compliance Registration for Code of Practice for Energy Efficiency of Building Services Installations.

Environmental-friendly Features for Projects

Embracing the importance of sustainability, HSUHK keeps integrating sustainability considerations into the planning and design stages to minimise environmental impact, optimise the use of resources and create a pleasant neighbourhood when the building comes into the subsequent stages of operation.

Our measures:

- Optimising energy efficiency through active and passive designs
- Adopting centralised chilled water plant with high coefficient of performance
- Installing photovoltaic panel systems for generating renewable energy
- Installing efficient water taps at basins and sinks and efficient water closets and urinals
- Installing acoustic windows to mitigate the impact of traffic noise
- Adopting Building Information Modellng (BIM) to allow the university to plan, visualise the entire project and make changes before construction starts so that amount of abortive works can be reduced
- Conducting regular measurements to verify that the room acoustics, noise isolation and indoor vibration complied with the specified standards
- Provisions to create an environment that is accessible and usable by everyone, regardless of age, ability and status in life
- Adopting rapidly renewable materials (for example, bamboo) in building design and furniture where applicable
- Using recycled materials in building structure
- Using sustainable timber for wooden doors
- Maximizing green landscape area

Number of BEAM Plus (New Buildings) Certified Projects

	Provisional	Final
Platinum	1	4
Gold	-	-
Bronze	-	-

CONSTRUCTION STAGE

Our measures:

- Ensuring contractors comply with the environmental laws and regulations by executing Environmental Management Plan
- Adopting prefabrication to reduce waste and material consumption
- Implementing environmental mitigation measures to minimise air pollution, noise, and wastewater discharge from construction activities
- Adopting Building Information Modellng (BIM) to allow better coordination and clash detection and improve scheduling / sequencing to reduce the amount abortive works

OPERATION STAGE

Our measures:

- Regular maintenance and inspection to ensure system efficiency
- Replacement with energy and water efficient models during renovations and retrofitting
- Exploring new energy and water conservation measures
- Providing waste recycling facilities including food waste decomposer, to release part of the waste load from landfill
- Enhance the Barrier Free Access facilities around the campus

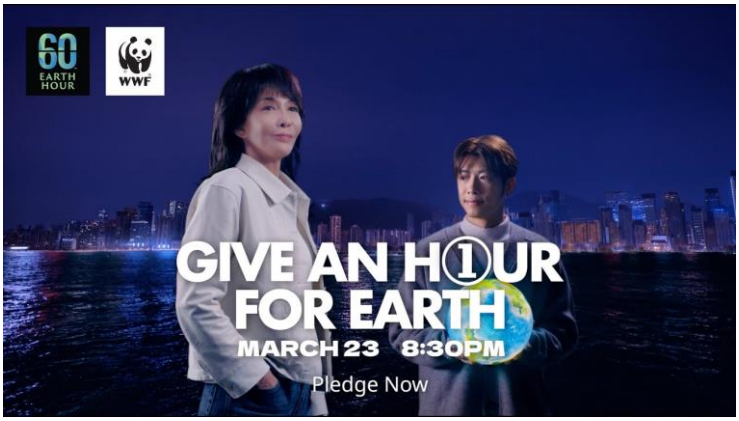
Energy Conservation and Energy Audit

Echoing the Low Carbon Charter, the University has targeted to reduce a further 30% of our corporate energy consumption and increase 100% of renewable energy capacity by 2028/29, with 2018/19 as the baseline year. HSUHK Quarterly Hour has been promoted since June 2018, which is expected to take place in March, June, September and December annually. We are closely monitoring our progress and taking the necessary measures to ensure success.

Energy Conservation

The University is mindful of the carbon footprint inherent to our development projects' building life cycle. We have adopted a variety of energy efficient designs and installations in our development projects for the reduction of greenhouse gas emissions. For instance,

- Installation of occupancy sensors and daylight sensors for control of lighting in classrooms, and also staircase at our new Academic Buildings.
- Installation of solar photovoltaic system at the roof of the HSUHK Jockey Club Residential Colleges and Creative Humanities Hub, estimated 1.7% and 4.1% of saving in annual energy consumption respectively. There is 94% increment in capacity as compared to academic year 2018/19.
- HSUHK has participated in Energy Saving Charter / 4Ts Charter since 2017 and there has been continuous energy saving since academic year 2016/17. About 20.9% of energy per capita has been saved in academic year 2023/24, as compared to 2018/19. Figures in academic year 2018/19 are selected as the baseline in the upcoming reports because this is the academic year when most of the building operations were reviewed and confirmed.
- HSUHK has participated in Earth Hour (organised by the WWF) and No Air Con Night (organised by the Green Sense) since 2017, to ask for support from colleagues and students to consider turning off air conditioning at living places, when the outdoor temperature is lower than 27°C.
- HSUHK Quarterly Hour has been promoted since June 2018, to take place in March, June, September and December annually, where two of the events coincide with the date of Earth Hour and No Air Con Night.



Energy Audit for Existing Buildings

The University makes every effort to minimise energy consumption when managing our buildings and facilities. We strive to enhance the equipment, operating systems, and procedures continuously. Energy audit for main campus buildings was completed in 2019 to identify energy saving opportunities. The next round of energy audits will be conducted in 2025.

Service Scope of Energy Audit	Items under Energy Audit
• Site inspection of business premises • Analysis of energy efficiency performance • Identification of energy saving opportunities • Audit report on findings and recommendations	• Electrical Appliances • Air Conditioning System • Lighting System • Heating System • Lift System

Energy Audit at Older Buildings (from 1980-2008)

Back in 2016, over 10 electrical appliances, 150 air conditioners, 2000 lighting fittings, 4 water pumps and 4 lifts were audited at M Building and N Building, the older/legacy buildings on campus.

Energy Saving Opportunities in Progress
• Use high energy-efficient refrigerator & washing machine (to be considered when replacement is required) • Use high energy-efficient air conditioner (completed) • Use high energy-efficient LED lamp (in progress, to be completed by in academic year 2024/25)

Energy Audit at New Buildings (from 2012 onwards)

In 2019, 4 electrical appliances, over 220 air conditioners / fan coil units, 5200 lighting fittings, 50 water pumps and 14 lifts were audited at S H Ho Academic Building, Lee Shau Kee Complex, Lee Quo Wei Academic Building.

Energy Saving Opportunities in Progress
• Use electronically commutated (EC) fan for air distribution system (to be considered when replacement is required) • Add renewable energy (solar system was recommended and under feasibility study) • Use variable refrigerant volume (VRV) units for air conditioning (completed for those requiring replacement)

More energy saving opportunities, including retro-commissioning (RCx), are under feasibility study, for reaching the target of 30% energy saving by the end of academic year 2028/29 when compared to 2018/19.

WASTE REDUCTION AND FOOD WASTE MANAGEMENT

The University intends to minimise the waste it generates by adopting effective waste management measures to reduce, reuse and recycle. Eco-friendly materials and equipment are given priority in our procurement process. To further mitigate our environmental impact, we have leveraged innovative technologies and incorporated industry best practices in our operations and construction procedures.

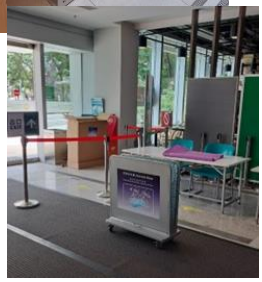
Waste Reduction Measures

- Further to phasing out all plastic bottled beverages in March 2021, water dispensers have been allocated around the campus to promote "Bring Your Own Bottle".

- About 4.0% increment of waste has been recorded in the academic year 2023/24, as compared to 2018/19, following the Demonstration Scheme for Municipal Solid Waste (MSW) charging in April 2024. Despite the current halt to the Scheme, the University is determined to provide more initiatives on campus (e.g. installation of reverse vending machine) to achieve the target of 5% reduction of waste by the end of academic year 2028/29 when compared to 2018/19.

- Recycling bins for battery, paper, metal, plastic, glass bottles are placed on most of the floors and near each building within the campus.

- Wet umbrella dryer in the entrance of S H Ho Academic Building and Lee Quo Wei Academic Building to reduce use of disposable plastic umbrella covers in rainy days.

- Compost boxes in Campus to fully utilize garden waste (say small branches and leaves) for transforming them into soil nutrients for further gardening use. Moreover, the pruned bamboos are further re-used as temporary support of planting.


- The Environmental Protection Department (EPD) has launched a Pilot Programme on Smart Recycling Systems, to enhance the community recycling services and efficiency through application of technology, as well as testing in phases smart recycling equipment with the Internet of Things (IoT) as the skeleton technology, for local application. Under the Pilot Programme, EPD arranged a Smart Recycling Promotion Vehicle (SRPV) to tour HUSHK on 1 March 2024, to promote Smart Recycling Systems and let our staff and students experience the operation of Smart Recycling Systems.

- To align with the HKSARG's submission of the Product Eco-responsibility (Amendment) Bill 2023 to the Legislative Council for the regulation of disposable plastic tableware and other plastic products effective on April 2024, Finance Office had:

  (i) Coordinated with three on-campus caterers to launch the campaign of using degradable utensils in HSUHK via daily observation.

  (ii) Added the clause of Corporate Social Responsibility in the tender specification to assure HSU's caterers have the same support in the environmental protection and green policies, starting from the catering tender of block B.

M Canteen

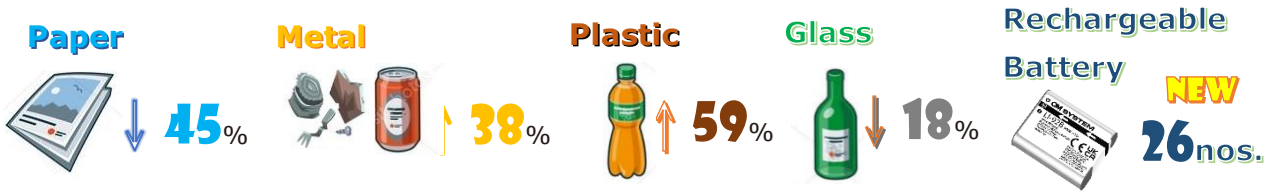
A Café

i.teeea

Property and Office Management

Our efforts to integrate waste minimisation measures in our daily operations and general office practices are reflected in our company policies. In the university, staff and students coordinate the waste management and recycling initiatives. Recycling facilities are easily accessible, stakeholders can engage in a range of environmental programmes focused on reducing and recycling waste and heightening awareness.

When compared to academic year 2022/23, the percentage change of recycled material per capita:



All our major offices provide waste sorting facilities and recycling bins for toner cartridges and fluorescent lights. Whenever possible, outdated office and IT equipment are donated to charities.

Electronic Waste Management

Information Technology Services Centre has donated 241, 69 and 38 nos. of unused/malfunctioned/damaged desktop computers, LCD monitors and printers to Caritas Computer Workshop in 2023/24. This allows the lifespan of the electronic device to be extended and hence reduces the electronic waste.

Food Waste Management

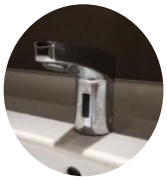
Since the installation of an odourless food waste decomposer near M Canteen in December 2022, food waste has been converted into carbon dioxide and wastewater and i then discharged into the sewage pipe before passing through a grease interceptor within 24 hours. This process effectively reduces the burden of waste sent to the landfill in Hong Kong. There are water sprinkler systems inside to remove the odour and so no odour will be released to the environment.

From academic year 2023/24, an average of 11.7 kg was decomposed per day.

WATER CONSERVATION

Water is also a precious resource. The University endeavours to minimise water use by upgrading facilities and recycling wastewater. We remind our stakeholders of the benefits of mindful water usage, in the hope of fostering green habits in our daily lives. About 18.1% of general water consumption per capita has been reduced in the academic year 2023/24 as compared to 2018/19. It is targeted to have 25% reduction in water consumption by the end of the academic year 2028-29 as compared to 2018/19.

Below shows some water conservation measures at the university.



i) Installation of infra-red sensor at water taps for control of water at our newer buildings.

ii) Adoption of rainwater recycling system for cleansing, irrigation and AC condenser water make-up installation at S H Ho Academic Building, estimated 5% of saving in annual water consumption.

iii) Adoption of rainwater and greywater recycling system for cleaning at the basement carpark and irrigation on podium and roof floors at HSUHK Jockey Club Residential Colleges, estimated 5% of saving in annual water consumption.

iv) Installation of water tank with pump system to collect and transfer grey water from the nature for irrigation

v) Adoption of water drip pipe for irrigation.

vi) Reuse of swimming pool water meant for disposal to clean the driveways and common areas in the Campus.

AIR QUALITY, LIGHT & NOISE POLLUTION MANAGEMENT

Environmental impact to the neighbourhood shall also be avoided. The university has also implemented the following measures:

i) Certified as good class in Indoor Air Quality Certification by the Environmental Protection Department in 2019.

ii) Exterior lighting installed is of a low lux level and low light power intensity. Simulations have been conducted to ensure sky glow and impact to light sensitive receivers were within acceptable levels.

iii) Measures including noise barriers were deployed to minimise the noise from the construction site and noise level received at noise sensitive receivers was measured at different times to ensure the impact was within acceptable levels.