

環保報告 ENVIRONMENTAL REPORT 2021





I. Introduction

Environmental protection is an integral part of the corporate functions of the Government Property Agency (the Agency). We are committed to making contribution to environmental protection in Hong Kong. We adopt environmental policies in the construction of new government buildings as well as in fitting-out and refurbishment projects for existing properties, and apply green housekeeping measures to properties under our management.

This report sets out our work in environmental protection in 2021 and the results of our efforts made. As the steward of government properties, we will continue to proactively subject all our activities to the closest environmental scrutiny.

II. Environmental Policies

The Agency's functions mainly cover acquisition and allocation, management and utilisation of government properties. Our environmental policies (Environmental Policies) are -

- To contribute to environmental conservation by adopting sustainable designs, building materials and installations in new Joint-user General Office Buildings (JUBs) and quarters, and in fitting-out and refurbishment projects;
- To ensure the management of government properties under our purview in an environmentally responsible manner;
- To implement green office management through effective housekeeping; and
- To promote awareness and participation among staff in environmental protection, reducing pollution and enhancing energy conservation and efficiency.



Trade and Industry Tower



West Kowloon Government Offices



Queensway Government Offices

III. Working with Partners

The Agency has followed the latest Joint Technical Circular on Green Government Buildings issued by Environment Bureau (ENB) (renamed as Environment and Ecology Bureau (EEB) on 1 July 2022) and Development Bureau (DEVB). We have been working closely with our partners and agents to implement the Environmental Policies.

- ▶ Our partners - bureaux and departments accommodated in JUBs, residents in quarters, non-governmental organisations and private tenants in premises under our management
- ▶ Our agents - Architectural Services Department (ArchSD) and Electrical and Mechanical Services Department (EMSD) as our works and maintenance agents, and Property Management Agents (PMAs)

IV. Green Management Committee

The Green Management Committee of the Agency coordinates the work on environmental protection including environmental policies, green performance targets, green management measures and activities to enhance staff awareness. It also organises Internal Environmental Audits (IEAs) to ensure compliance with the Agency's Environmental Policies and commitments.



V. Environmental Initiatives

The Agency has been working together with ArchSD, EMSD and other relevant departments to implement the Government's green initiatives by adopting sustainable design and materials in construction of new buildings and renovation of existing buildings. In property management, we are closely monitoring energy consumption and have rolled out various measures to enhance energy efficiency. We have also introduced waste separation and recycling programmes and carried out carbon audit regularly for our office buildings and quarters.

► Environmental Conservation in Projects and Fitting-out Works

Sustainable Design in New Buildings

We have stipulated explicit requirements for new building projects under the Agency's purview -

- Optimisation of site development potential;
- Use of sustainable designs to cater for present and future needs; and
- Adoption of energy-efficient and renewable energy installations to facilitate energy-saving, renewable energy collection and green management of the properties in the long run.



The Treasury Building is a new JUB project in Cheung Sha Wan.



The Treasury Building project has adopted various green and energy-saving features in the building design -

- High performance façade system : solid walls of “end core” to reduce OTTV while maintaining sufficient window provisions for natural lighting to the offices

- External sunshading devices : sunshading devices to optimise the shading effect without compromising the view from the offices

- Renewable energy and regenerative power facilities : photovoltaic panel system and power regenerative lifts

- Energy-efficient facilities : demand control ventilation, LED lighting, occupancy and daylight sensors, service-on-demand escalators and water saving sanitary fitments

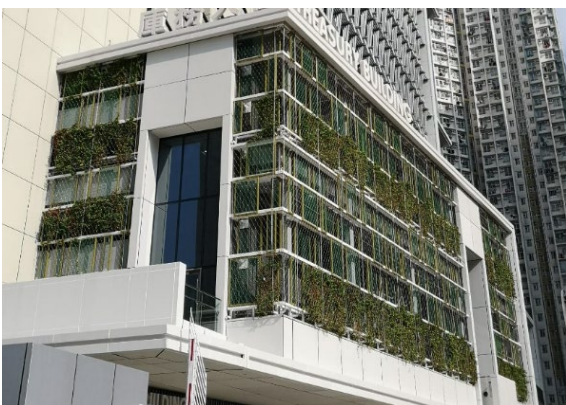
- Landscaping, podium garden and vertical greening at podium façade



Solid wall of end-core



External sunshading devices



Vertical green at podium façade



Power regenerative lifts

Various environmental measures have been implemented during construction including precast staircase, green hoarding, sorting and recycling of construction waste, wheel washing system for construction vehicles and green housekeeping.



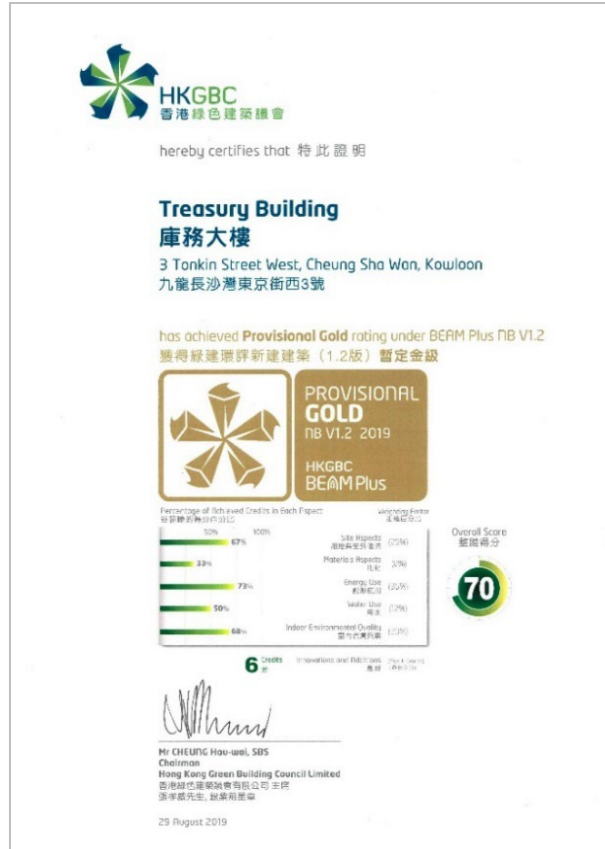
Green Buildings Achievement

We have been working closely with ArchSD in participating in green building labeling for our new government building projects. Achievement in rating has been obtained in BEAM Plus New Buildings of the Hong Kong Green Building Council (HKGBC) –

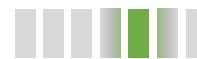
- West Kowloon Government Offices (WKGO) : Final Platinum
- Treasury Building : Provisional Gold



Certificate of Final Platinum rating under the BEAM Plus New Buildings to WKGO issued by HKGBC



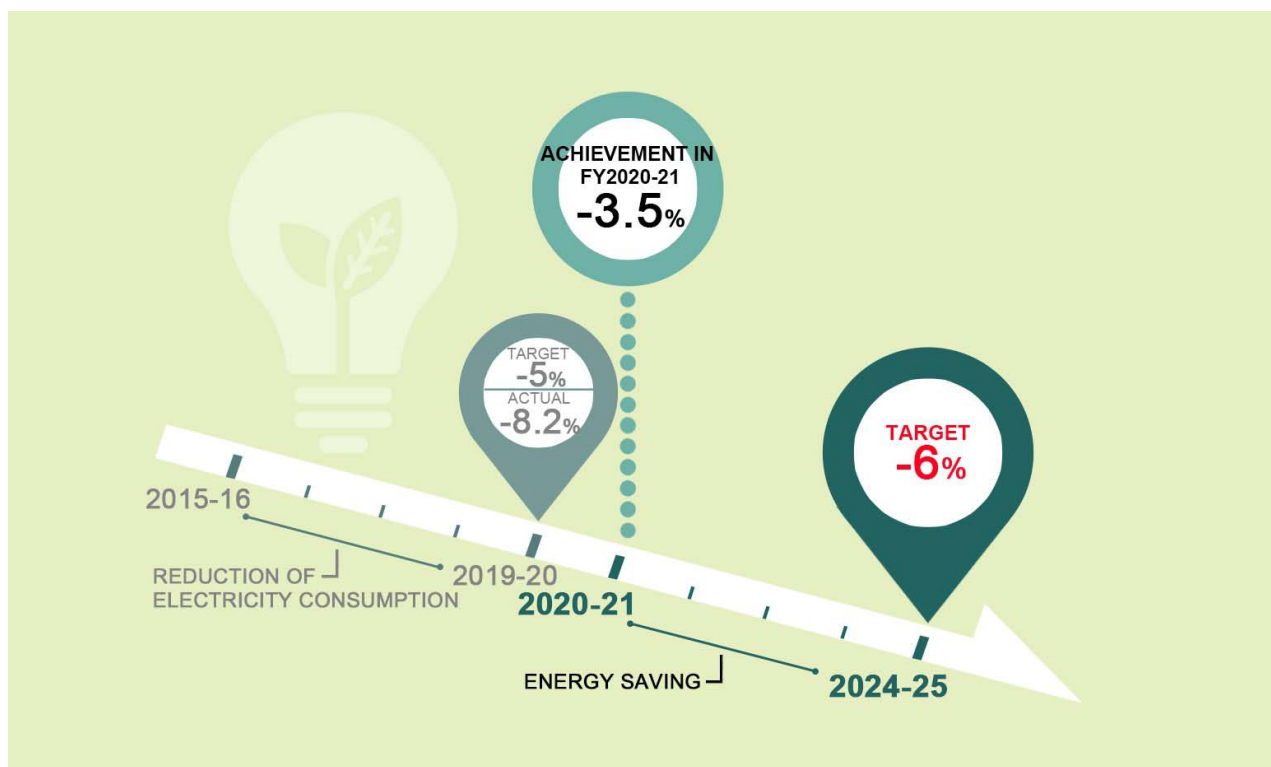
Certificate of Provisional Gold rating under the BEAM Plus New Buildings to Treasury Building issued by HKGBC



► Energy Saving and Efficiency in Existing Buildings

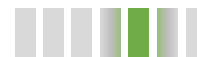
Energy Saving Target

With the completion of improvement projects and implementation of electricity saving measures, the Agency has achieved approximately 8.2% reduction in electricity consumption in government properties under the purview of the Agency in FY2019-20, exceeding the 5% target set by the Government for government buildings from FY2015-16 to FY2019-20 under comparable operating conditions in FY2013-14 as the baseline.



Energy saving in government properties under the purview of Government Property Agency

In 2020, the Government has set another 6% energy saving target from FY2020-21 to FY2024-25 under comparable operating conditions in FY2018-19 as the baseline. This target covers saving in electricity and other forms of energy and renewable energy generation. With this target in mind, the Agency has been working with EMSD and ArchSD to identify energy saving projects and renewable energy systems in existing buildings and achieved a 3.5% overall energy saving in FY2020-21.



Energy Saving Measures

The Agency has been working closely with EMSD and ArchSD to explore and implement new energy saving in existing buildings under our management, including -

- Replacement of existing plant and equipment with more energy-efficient alternatives;
- Upgrading of central control and monitoring system for energy management;
- Retro-commissioning of building services system to check energy performance;
- Installation of motion sensor for lighting devices in common areas; and
- Replacement of lighting fittings with LED lights.

Our major energy saving projects carried out in 2021 -



Replacement of air-cooled chillers with variable speed drive (VSD) at Tai Hing Government Offices



Replacement of air-cooled chillers and chilled water pumps with VSD at Tai Po Government Offices

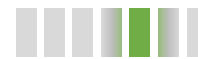
Other energy efficiency systems have been used in newer government buildings, such as lift regenerative power system and occupancy sensor for lighting control in WKGO and seawater-cooled chiller in Hong Kong-Zhuhai-Macao Bridge, Hong Kong Port (HZMB HKP) for energy conservation.



Occupancy sensor for lighting control at WKGO



Seawater-cooled chiller at HZMB HKP



Energy Efficiency

The Agency has been managing government properties in an environmentally responsible manner to enhance energy efficiency through -

- Conducting energy audits with EMSD to identify opportunities for reducing energy consumption;
- Implementing housekeeping measures, e.g. minimising illumination level of lighting, optimising operating hours of lifts and escalators, etc.;
- Implementing energy-saving measures, e.g. reducing light fittings, installing motion sensor for lighting and timers to switch off building services installations, etc.;
- Procuring energy-efficient electrical appliances, such as refrigerators complying with Energy Label Grade 1 under the Mandatory Energy Efficiency Labelling Scheme; and
- Joining various environmental events, e.g. “No Air Con Night 2021” by Green Sense and “Earth Hour 2021” by World Wide Fund for Nature.

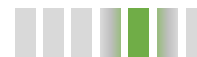


ENERGY SAVING PLAN

For Hong Kong's Built Environment
2015~2025+

For JUBs, we monitor energy consumption monthly to plan energy-saving strategies. Local monitoring systems have been installed in relevant JUBs to closely monitor the consumption of individual floors. This will alert the user bureaux / departments and the Agency to any irregularities and to formulate remedial measures with the works agents and PMAs.

On air-conditioning facilities in JUBs, we have standardised the average room temperature of 25.5°C during summer and the core air-conditioning hours. Similarly, for leased-in premises, we have requested all new leasing and renewal cases to adopt 25.5°C as the standard air-conditioned room temperature.



Renewable Energy Projects

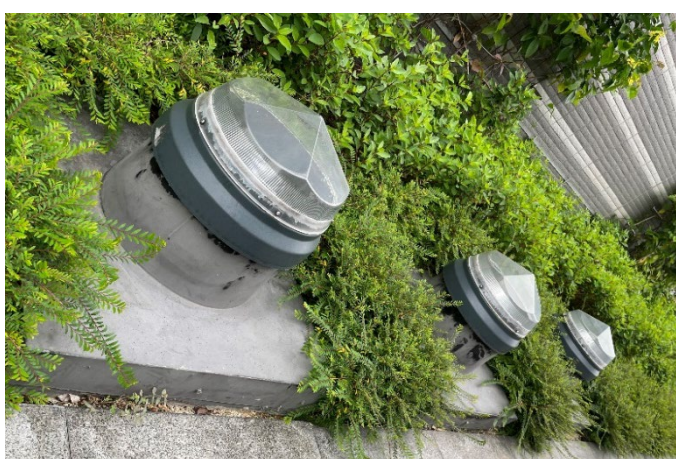
The Agency has worked closely with ArchSD to adopt various renewable energy (RE) technologies in the design of new JUB projects following the latest circulars and guidelines issued by EEB and DEVB. We also endeavour to explore with our works agents opportunities in employing RE technologies in existing JUBs and quarters, particularly in the upcoming major retrofitting and/or renovation works, as far as practicable. Apart from the environmental benefits, it also serves for educational purposes to promote the wider use of RE technologies.



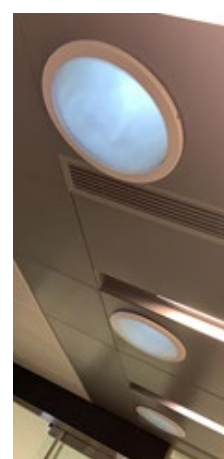
PV Panels at Tuen Mun Government Offices



Sunlight collector at WKGO



Light pipes at WKGO (external)



(internal)



PV powered LED lamps at Aurizon



Solar bollards at Shun Lee Disciplined Services Quarters (right)
Sau Mau Ping Disciplined Services Quarters (left)



► Greenhouse Gas Reduction

The Agency, working in accordance with Commitment 4 of the Clean Air Charter that government bureaux and departments undertake to adopt energy-efficient measures in their operations, continues to adopt practicable energy-efficient measures and comply with the Environmental Policies in order to contribute towards improving air quality of the territory.

Carbon Audit

We have nominated buildings under our management to participate in carbon audits in accordance with the guidelines of EPD and EMSD for carbon audit of buildings in Hong Kong to improve the awareness of Greenhouse Gas (GHG) emission.



In 2020/21, carbon audits were carried out for another round in 44 JUBs and 56 quarters developments and for the first time in another 1 JUB, 2 quarters developments and 1 boundary control point. Over the year, the total GHG emission in buildings under our management with annual electricity consumption above 500,000 kilowatt hours was about 145,090 tonnes of CO₂-e. 41 JUBs and 52 quarters developments recorded a decrease in GHG emission.

GHG reduction measures implemented -

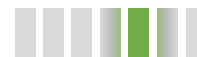
- Energy saving : Replacement of chillers and pumps at the end of their economic life with more energy-efficient alternatives

- Paper saving : 100% recycled paper for copying and re-use single-sided paper

- Water saving : Installation of water-saving devices such as self-closing/ sensor water tap in toilets of most JUBs

- Recycling activities : Collection boxes in place for different recyclable items

- Staff engagement : Green activity and briefing for the Agency's staff



► Indoor Air Quality

The Agency has been actively participating in the Hong Kong Awards for Environmental Excellence Scheme in the property management sector. We have arranged for the buildings under our management to obtain Indoor Air Quality certification annually.

Indoor Air Quality in 2021

- Trade and Industry Tower
- West Kowloon Government Offices
- North Point Government Offices
- Passenger Clearance Building of HZMB HKP
- all other JUBs suitable for Indoor Air Quality monitoring

Excellent Class

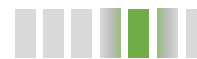
Good Class



Indoor air quality certificate: Excellent Class to Trade and Industry Tower issued by EPD



Indoor air quality certificate: Excellent Class to WKGO South Tower issued by EPD



► Waste Reduction and Management

By incorporating suitable provisions in the property management contracts, the Agency implements environmental awareness programmes and green campaigns through PMAs in JUBs and quarters.

Food Waste Reduction

The Agency and its PMAs have signed up as Food Wise Partners under the Food Wise Hong Kong Campaign for food waste reduction in quarters.

Our PMAs have also participated in several food collection campaigns to help reduce food waste in quarters, such as Mooncake Collection of the Green Mid-Autumn Festival 2021 Campaign organised by Food Grace and Recycling of Food organised by Food Angel in 2021.



Certificate of appreciation - Mooncake Collection organised by Food Grace

Food Waste Recycling

The Agency has initiated a food waste recycling pilot scheme since 2013 in some quarters to convert food waste to useable fertiliser via a composting process. We have worked closely with EPD to achieve desirable results in the scheme. In order to promote residents' awareness of proper food waste management and their participation, our PMAs organise promotional and educational activities in those quarters from time to time.



Food waste composter at Kwai Yung Court



Solid Waste Recycling and Reduction

The Agency has set up waste recycling points in some JUBs and quarters to promote green living. We record data on the quantities of recyclable wastes collected under each category and reports to EPD on a monthly basis. We will keep track of the recycling data and review the recycling activities held at JUBs and quarters with our PMAs when necessary.

Other environmental measures carried out by PMAs include promotion of the use of environmentally friendly supplies in the management of government buildings (e.g. provision of degradable plastic rubbish bags for the use of quarters residents).

Waste Management Achievement

- A variety of awards issued by EPD in Commendation Scheme on Source Separation of Commercial and Industrial Waste 2020/21 (in pure office category) -
 - Gold Award, Bronze Award, Award of Enhancement and Certificate of Merit

- 2021 Friends of EcoPark Certificate of Appreciation issued by ENB for sustaining the support given to recycling business in EcoPark

- Bronze Award issued by EPD in Commendation Scheme on Source Separation of Domestic Waste 2020/21

- Hong Kong Green Organisation Certificate, Wastewi\$e Certificate (Basic Level) and Energywi\$e Certificate (Basic Level) issued by Environmental Campaign Committee

- Appreciation certificates for participation in various programmes by EPD and ENB including -
 - Rechargeable Battery Recycling Programme
 - Fluorescent Lamp Recycling Programme
 - Computer & Communication Products Recycling Programme
 - Peach Blossom Trees Recycling Programme



Commendation Scheme on Source Separation of Commercial and Industrial Waste 2020/21 - Gold Award (Pure Office) to Revenue Tower issued by EPD (left)
2021 Friends of EcoPark Certificate of Appreciation issued by ENB (right)



Waste Reduction in Leasing of Office and Surplus Quarters

In new leasing of office premises, the Agency liaises with works agents and landlords to waive reinstatement liability upon lease expiry as far as practicable to encourage recycling and reusing the fittings or fixtures by the incoming tenants. An example is a new leasing case of an office premises in Kwun Tong where the landlord has agreed to waive reinstatement liability upon lease expiry.

For leases with reinstatement liability clause, in vacating premises, we would negotiate with landlords to repossess the property in its “as-is” condition and do away with reinstatement requirement such that the future tenant can make use of our existing fittings and decoration to help reduce waste generated in the renovation. We have successfully persuaded landlords to retain some existing fittings or fixtures for a number of office de-leasing cases.

For leased-out surplus quarters, the Agency has adopted a flexible approach in requiring outgoing tenants to fulfil their reinstatement obligation. For fittings or fixtures which are still in good condition and useful to incoming tenants, we will waive the tenant’s reinstatement obligation. Separately, for lettings of surplus quarters, we have disposed of them on an “as-is” basis to achieve the objective of environmental protection.

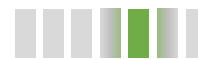
Waste Reduction in Fitting-out of Government Offices

The Agency advises bureaux and departments to adopt an open-plan setting as far as possible and keep internal partitioning to the minimum in office renovation to provide the greatest flexibility in the use of space and to minimise fitting-out or reinstatement works.

► Water Consumption Management

To help create a healthy environment for water consumption and maintain water quality for buildings managed by the Agency, we have worked closely with ArchSD to implement proper periodical maintenance and housekeeping measures to the water supply system -

- Water saving devices, such as sensor water tap and dual flush toilet cisterns, with suitable water efficiency grade of the Water Efficiency Labelling Scheme would be installed whenever feasible in renovation and maintenance projects;
- Flow controllers to the water taps of typical toilets and pantries have been installed in all existing JUBs whenever feasible; and
- Posters and notices are also placed in prominent places at JUBs and quarters to encourage water saving.



Other water saving systems have been installed in newer buildings, such as rainwater harvest system for irrigation in WKGO and HZMB HKP. In HZMB HKP, waste water is also treated by sewage treatment plant and subsequently fed to reclaimed water plant for flushing purpose.



Sensor water taps in JUBs



Reclaimed water pumping station in HZMB HKP

► Other Green Initiatives

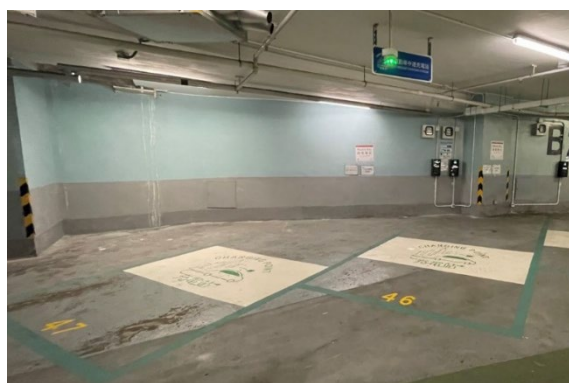
Electric Vehicle Charging Facilities

To assist in promoting the Government's policy for a wider use of electric vehicles (EV) to help improve roadside air quality, reduce greenhouse gas emission and promote development of environmental industries, 395 private car parking spaces (as at February 2022) have since 2022 been installed with mainly standard/medium EV chargers in government car parks open to public use under the management of the Agency.

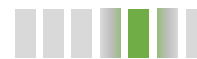
To facilitate EV drivers to use these charging facilities, we have made special arrangements with car park operators to reserve some parking spaces fitted with charging facilities during non-peak parking hours for priority use by EV drivers for recharging. To draw EV drivers' attention to the charging facilities, notices are displayed in these car parks. We will continue to liaise with relevant bureaux and departments to increase EV charging facilities.



EV chargers at HZMB HKP car park



EV chargers at Sha Tin Government Offices car park



Greening and Landscaping

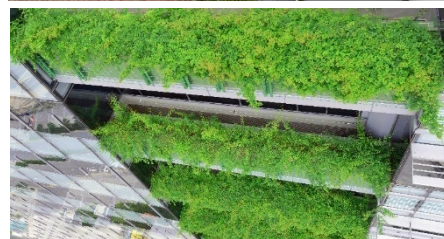
The Agency has adopted landscaping at pedestrian level, roof garden, sky garden and vertical green system at façades in new buildings for environmental and amenity benefits.



Vertical greening at WKGO



Landscaping at HZMB HKP



Landscaping at WKGO (top)

Vertical greening at Trade and Industry Tower (bottom)

Other Green Requirements for Commercialised/ Leased-out Premises

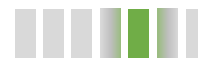
For premises leased out to private tenants, the Agency has incorporated green requirements in the tenancy agreements, including -

- Lights out for external advertising signs from 11 p.m. to 7 a.m. to achieve energy saving and avoid light nuisance;

- Prohibiting the use of single-use and non-decomposable lunch boxes for take-away services by government canteen operators (for tenancies invited before 2019);

- Prohibiting the provision of (i) disposable tableware for dine-in customers and (ii) disposable tableware by default for take-away customers by catering outlets operators, including government canteen operators (for tenancies invited from 2019 onwards); and

- Prohibiting the sale of plastic bottled water measuring 1 litre or less through automatic vending machines.



► Green Housekeeping and Activities

Green Housekeeping

We have continued to implement effective green housekeeping in the Agency's offices -

- Installing water saving devices in all toilets and pantries;
- Adjusting the supply of hot and cold water of the water dispenser to achieve energy saving;
- Using 100% recycled paper and double-sided printing;
- Engaging the contractor of Government Logistics Department (GLD) for the collection of used paper for recycling; and
- Implementing green housekeeping through GLD's bulk purchase contract or trade-in arrangements when purchasing new computers.

We have also continued to re-circulate notices on environmental policies and circulars to remind all staff periodically of proper green housekeeping measures and energy conservation -

- Switching off monitors and printers before getting off duty rather than leaving them at a stand-by or energy-saving mode;
- Encouraging colleagues to separate waste at source; and
- Posting notices inside pantries and toilets of the Agency to remind staff on water saving.

Green Activities

Green activities to promote low carbon living were well attended by the Agency's staff in 2021. We will continue to arrange more activities to raise staff awareness on the environment.



No Air Con Night 2021 organised by Green Sense



Visit to O-PARK1 as an organic resources recovery centre to convert food waste into renewable energy



VI. Environmental Targets for 2022 onwards

The Agency will continue to implement the following measures in the premises under our management to promote environmental protection in the coming years -

- Incorporate sustainable features in new JUBs and renovation projects;
- Adopt energy-efficient and RE technologies in existing properties where practicable;
- Maintain greening and landscaping;
- Monitor energy consumption of JUBs;
- Reduce electricity consumption in common areas of the premises;
- Reduce waste and facilitate waste collection and recycling programme;
- Monitor indoor air quality;
- Reduce GHG emission;
- Raise energy saving awareness of JUB users and quarters residents;
- Continue to procure energy-efficient domestic appliances;
- Promote environmentally friendly operations by tenants;
- Facilitate waste reduction at source through tenancy agreements;
- Liaise with relevant bureaux and departments to increase or upgrade the related EV charging facilities in car parks under the Agency's management; and
- Keep up green housekeeping measures and promote awareness of staff in energy saving and environmental protection.

VII. Comments and Suggestions

We welcome views and suggestions on this report. You may contact us by email or telephone -

Email : enquiry@gpa.gov.hk

Telephone : 3842 6812 or 3842 6788.