

ENVIRONMENTAL REPORT 2013 Government Property Agency



1. Message from the Government Property Administrator

Environmental protection is an integral part of the corporate functions of the Agency. It is our conviction to make contribution to environmental protection in Hong Kong.

This report sets out our work in environmental protection in the year 2013 and the results of our efforts made. As the steward of Government properties, we continue to proactively subject all our activities to the closest environmental scrutiny.

In the management of government properties, we closely monitor energy consumption and roll out various measures to exercise economy. We also introduce various waste separation and recycling programmes and carry out carbon audit at regular interval in our office buildings as well as quarters.

In the development of new government office buildings as well as reprovisioning projects, we strive to optimise development potential, adopt sustainable design to meet operational needs and implement energy-efficient measures to facilitate green management of the properties. The Trade and Industry Tower in the Kai Tak Development Area now under construction has been selected as an energy-efficiency demonstration project of public works to try out various energy-efficient designs and technologies. It is now proceeding in full steam. We will adopt the same approach for other new government office building projects in the pipeline.

In pursuing our environmental objectives, we rely heavily on partnership with user bureaux and departments accommodated in our buildings, our works agents, property management agents and other business collaborators, occupants of properties under our management and an

increasingly environmentally conscious and responsible community. We express our deep appreciation to their support which is instrumental in our environmental protection work.

It is crucial that we should develop new momentum to go forward and to make further improvement. Community aspiration in minimizing energy consumption and waste reduction, recycling and separation is ever-increasing. We are confident that, with the strong partnership we have built up with all parties concerned, we will rise to the challenge and make our contribution.

Alan SIU, JP
Government Property Administrator

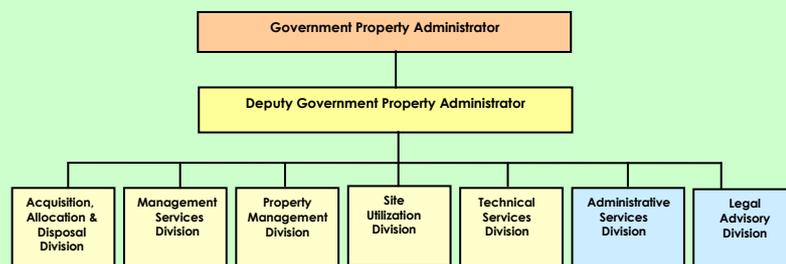
2. Vision and Mission

With the vision of providing suitable Government accommodation to enable efficient delivery of public services, the Agency's mission is:

- To meet Government's need for accommodation through optimal use of the current stock of properties and development of new facilities where necessary.
- To provide quality management services for Government properties through cost-effective means available.
- To modernise Government properties to meet changing operational and statutory requirements.
- To optimise the utilization of Government sites and properties.

3. Organisation and Functions

The Government Property Agency has an establishment of 211 staff and is headed by the Government Property Administrator. The Agency discharges its main functions through five operational Divisions in accordance with agreed strategic plans in striving to achieve the Agency's vision and mission. Two other Divisions provide respectively administrative and legal advisory support to the Agency.



Organisation Chart



The main functions and activities of the Agency are:

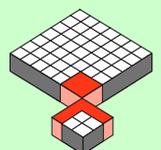
- To construct, purchase or lease as may be necessary office premises to meet Government's accommodation needs and to ensure their proper utilization.
- To manage Government properties under its purview.
- To optimise the use of Government, Institution or Community sites through reviewing site reservations, seeking the release of underutilised Government sites and examining proposals for new developments.
- To vet accommodation requirements of bureaux and departments.
- To optimise the use of Government-owned premises and de-lease office accommodation as far as possible.
- To lease out surplus Government properties with commercial potential and implement new commercialization initiatives where appropriate.
- To scrutinise deeds of mutual covenants provisions and execute assignments concerning Government accommodation in private developments.

4. Environmental Policies



The Agency's Environmental Policies are:

- To contribute to environmental conservation by ensuring that sustainable designs, building materials, installations and processes are adopted in the construction of new Government joint-user office buildings (JUBs) and quarters, and in fitting-out and refurbishment projects;
- To ensure that the management of Government properties under the Agency's portfolio is carried out in an environmentally responsible manner, for example, by promoting energy-saving, separation of waste at source, food waste recycling, etc;
- To implement green office management through effective housekeeping to minimise waste and use of resources; and
- To promote environmental awareness and participation among staff and visiting members of the public in the continuous improvement of environmental protection, reducing pollution and enhancing energy conservation and efficiency.



5. Working with Partners



Our partners mainly comprise users of Government properties under the Agency's purview and agents for works, maintenance and management. The former include bureaux and departments accommodated in JUBs and residents in Government quarters as well as non-Governmental organisations (NGOs) and private tenants in premises under our management. Our agents include Architectural Services Department (ArchSD) and Electrical and Mechanical Services Department (EMSD) as our works and maintenance agents, and Property Management Agents (PMAs).

We have been working closely with our partners to implement the Environmental Policies in the following areas:

- In the construction and refurbishment of Government premises, the Agency seeks to minimise the environmental impact in the design, construction methods and choice of materials.
- To make proper use of scarce land resources and the existing building stock, the Agency coordinates the different accommodation needs of bureaux and departments in ensuring the optimum utilisation of Government sites and premises.
- In managing Government properties, the Agency continues to implement green housekeeping measures to minimise energy consumption and facilitate collection of waste for recycling as far as possible.

6. Green Management Committee and Internal Environmental Audit

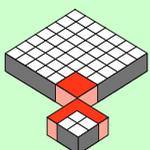


To coordinate and spearhead the work on environmental protection, the Agency established a Green Management Committee (GMC) in December 2003. Comprising representatives from all Divisions under the Deputy Government Property Administrator, the GMC operates as the focal point in bringing together the inputs of Divisions in tackling environmental issues covering all aspects of the Agency's functions.

The GMC continues to review environmental policies, set performance targets on green measures, review and report green management measures and arrange green training activities to enhance staff awareness. It has also organised annual Internal Environmental Audits (IEAs) to ensure compliance with the Agency's Environmental Policies and commitments.

The Agency has completed IEA 2013. It concluded that all operations generally conformed to the Environmental Policies and targets set for 2013.

The Agency is a member of the Energy Efficiency and Conservation Sub-committee under the Energy Advisory Committee, comprising members of various disciplines from the public and private sectors, contributing views and support to the green policies of Government.



7. Environmental Initiatives in 2013

7.1 Rolling Programmes for Energy-saving Retrofit and Renewable Energy Projects



The Agency has been working closely with EMSD and ArchSD in exploring new energy-saving opportunities with a view to further reducing energy consumption in JUBs. Four major energy consumption areas, namely air-conditioning, luminaries, electrical installations and lift operation, were identified for continued and focused action. We also carried out energy retrofit projects proposed by EMSD to upgrade the existing installations progressively in a cost-effective manner according to a coordinated implementation programme.

The programme included replacement of existing plant and equipment at the end of their economic life with more energy-efficient alternatives, such as replacing existing T8 fluorescent lights with T5 lights, replacing spot ceiling lights with compact fluorescent lights, replacing quartz lights in all lifts with Light Emitting Diodes (LED) type, replacing existing exit sign lighting with LEDs, installing frequency inverters and automatic tube cleansing systems in air-conditioning systems and installing LED lightings in the rear staircases of Elizabethan Court and Shun Lee Disciplined Services Quarters.

To promote the use of renewable energy, the Agency worked with EMSD on a pilot basis in 2012 to install anidolic sun-light pipes in the carparking area of Shun Lee Disciplined Services Quarters. Sun-light pipe helps to maximise usage of renewable energy by reflecting external sunlight to internal carparking area through a pure silver base mirror-finished aluminium tube. The installation has been completed and the energy-saving results will be closely monitored.



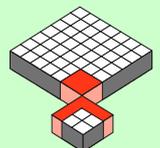
With the progressive implementation of energy-saving projects in the current programme, the Agency expects to realise an estimated total saving in the region of \$3.2M over the next five years from 2014 to 2019. Beyond that, further energy-savings in JUBs are likely to be more difficult to achieve as much of the benefits of energy-saving measures based on current technologies will have been realised. Nonetheless, the Agency will continue to make efforts to identify new opportunities to further save energy.

7.2 Monitoring Electricity Consumption in Government Joint User Buildings



Air-conditioning systems account for a major part of the overall energy consumption in office buildings. The Agency has introduced additional measures to reduce energy consumption in all JUBs since the summer of 2005, including standardizing the average room temperature to 25.5°C during the summer months and the core air-conditioning hours with a view to maintaining the workplace a comfortably air-conditioned environment. Other measures including reducing the number of light fittings, optimising the operating hours of lift services and public lighting, installing timers to switch off building services installations such as exhaust fans inside car parks during the off-peak hours, etc. are continuously being enforced.

To achieve further improvements, the Agency has installed floor-by-floor energy monitoring meters with Remote Monitoring Systems (RMS) in a number of JUBs. The previous 3-year cycle of Energy Audit for all JUBs has been completed. In view of the 10-year duration applicable to commercial buildings and commercial portions of composite buildings as specified in the new Building Energy Codes, EMSD has recommended a new 8-year cycle of Energy Audit from 2012 – 2020. This will be implemented for all JUBs.



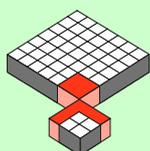
Follow-up actions in response to audit results are being implemented. Energy-saving measures implemented include the removal of unnecessary light fittings for those offices with excessive illumination level identified in the audit; and encouragement of users to adopt good office practices such as installing timers for electrical appliances, switching off computers when leaving the office, and task lighting etc. The Agency also performed regular checks to ensure that users and PMAs carry out energy-saving measures. Motion sensors have been replaced in Homantin Government Offices for saving energy. Photo sensors have been installed at the ground floor ceiling of Queensway Government Offices to control part of the ceiling lights for energy- saving during daytime.

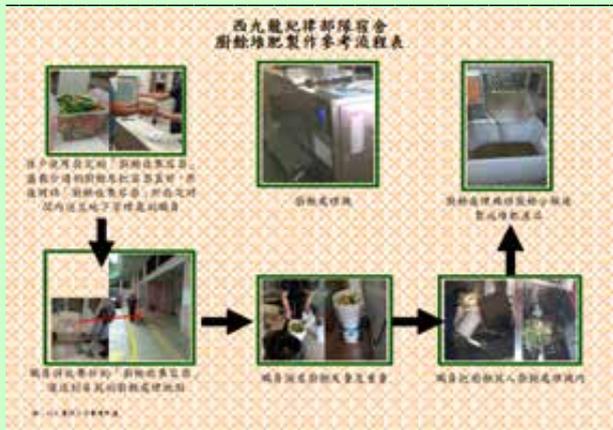
As a means of monitoring electricity consumption, the Agency records monthly statistics on total power consumption of JUBs and conveys them to the Building Management Committee (BMC) of each JUB. At every BMC meeting, energy-saving is a standing item on the agenda for a thorough review of the results obtained in the previous period; and for planning future energy-saving strategies. With the completion in the installation of floor-by-floor energy monitoring meters in various JUBs, PMAs are now able to closely monitor the power consumption of individual floors. This will alert the user bureaux/departments in JUBs and the Agency to any irregularities; and enable follow-up examinations and formulation of remedial measures in collaboration with the Agency's works agents and PMAs.

7.3 Environmental Awareness, Waste Separation and Re-cycling Programme in JUBs and Quarters

By incorporating suitable provisions in the property management contracts, the Agency implements environmental awareness programmes and green campaigns through PMAs in JUBs and quarters under the Agency's management. To raise occupants' environmental awareness, the Agency prepares publicity materials and distributes them widely to user bureaux and departments.

The Recyclable Waste Collection Campaign, which involves distributing environmental friendly refuse bags and implementing floor-by-floor Source Separation Programme continued in the quarters and JUBs under the management of the Agency. An expanded mode of the Source Separation Programme now covers most quarters. Under the Programme, appropriate facilities were placed on the ground floor, apart from the existing 3-colour source separation boxes, to collect different types of recyclables, such as used clothes, red packets and books, empty boxes and seasonal flowers after Chinese New Year, etc, as the Building Management Offices may arrange periodically. Letter of green practice and sticker of green use of air-conditioning and lighting were issued to all user departments of JUBs. The Agency has also introduced a pilot programme on recycling of glass bottles in selected JUBs and quarters, and is working to expand the programme to more venues under its management.



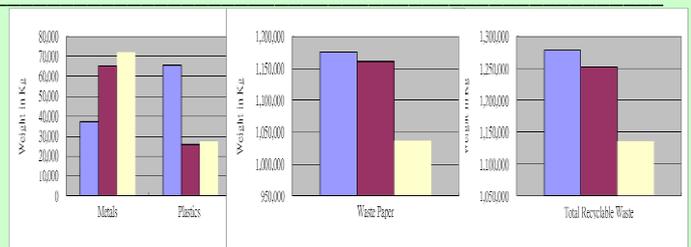


In addition, in order to promote food waste management, the Agency implemented Food Waste Recycling as a pilot scheme in West Kowloon Disciplined Services Quarters and Kwai Yung Court since 2013. The compost of food waste recycling collected in the scheme was re-used as organic fertiliser for planting by residents and also in the planters at the quarters.



In 2013, each PMA organised 5 to 9 environmental awareness activities, which included the collection of recyclable batteries, used clothes, moon cake tins, red packets, toner cartridge, plastic bottles, electrical and electronic equipment as well as spent mercury containing lamps, etc. They also promoted a programme on source separation of commercial and industrial/domestic waste. The Agency received reports on such activities at its monthly contract meetings with PMAs.

The Agency records data on the quantities of recyclable wastes collected under each category and reports them to EPD on a monthly basis. The total amount of recyclable waste collected at GPA venues, including waste paper, metals and plastics, decreased by 9.24% from 1,252,632 kg in 2012 to 1,136,835 kg in 2013.



Waste collected under Waste Separation and Recycling Programme at GPA venues

7.4 Procurement of Energy-efficient Electrical Appliances

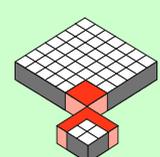
The Agency continued to implement the policy of procuring energy-efficient domestic electrical appliances for quarters under its management, such as refrigerators which comply with Energy Label Grades 1 or 2 under the Energy Efficiency Labeling Scheme operated by EMSD.



7.5 Prohibiting the use of Non-decomposable Lunch Boxes



Through the incorporation of special provisions in tenancy agreements, the Agency has been prohibiting operators of canteens in Government buildings from using single-use non-decomposable lunch boxes for take-away services since 2004.



7.6 Environmental Concerns and Initiatives in New JUBs and Re-provisioning Projects

In line with the policy of sustainable development, we have stipulated explicit requirements in the Project Definition Statements of new projects which fall under the Agency's purview to ensure optimization of site development potential, adoption of sustainable designs to cater for proponent's present and future needs, and adoption of energy-efficient installations to facilitate energy-saving and green management of the properties in the long run.

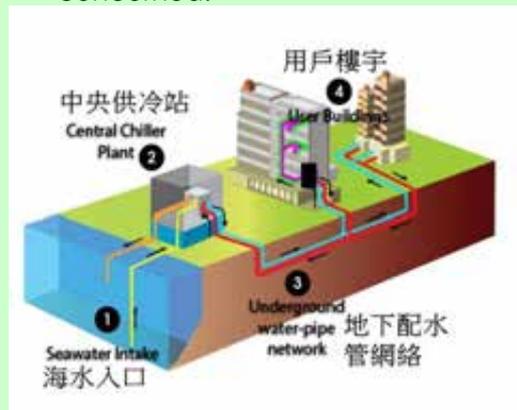


Apart from energy saving, the DCS will bring about the following benefits for individual users:

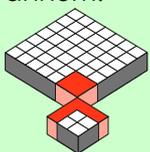
- Reduction in upfront capital cost for installing chiller plants at the buildings. The reduction is about 5-10% of the total building cost;
- More flexible building designs for user buildings as they do not need to install their own chillers and the associated electrical equipment;
- Reduced heat island effect in the Kai Tak Development Area and no noise and vibration arising from the operation of the heat rejection equipment and chillers of air-conditioning plants in buildings as such equipment will no longer be necessary for buildings subscribing to the DCS. Also, DCS can contribute to air quality improvement and the vision of achieving low carbon economy; and
- A more adaptable air-conditioning system to the varying demand as compared to individual air-conditioning systems. For each individual building, cooling capacity can be increased by bringing in additional cooling capacity from the DCS without carrying out extensive modification works for the building concerned.



An example of environmental initiatives for new JUBs is the connection of the future Trade and Industry Tower to the District Cooling System (DCS) in the Kai Tak Development Area for the provision of air-conditioning service. The DCS is one of the major infrastructure facilities in support of the sustainable and environmentally-friendly development at Kai Tak. To promote energy efficiency and conservation, the Government is constructing a first-of-its kind DCS in Kai Tak with a planned total of about 1.73 million square metres of non-domestic air-conditioned gross floor areas, requiring about 284 megawatt of refrigeration cooling capacity. The DCS is an energy-efficient air-conditioning system as it consumes 35% and 20% less electricity as compared with traditional air-cooled air-conditioning system and individual water-cooled air-conditioning systems using cooling towers respectively. The technology has been widely adopted in other parts of the world, such as Europe and the United States. Implementation of a DCS in the Kai Tak Development Area will bring about significant environmental benefits. Due to better energy efficiency, the maximum annual saving in electricity consumption upon completion of the entire project is estimated to be 85 million kilowatt-hour, with a corresponding reduction of 59 500 tonnes of carbon dioxide emission per annum.



We will also adopt other state-of-the-art energy-efficient designs and technologies for the Trade and Industry Tower project. We will adopt other energy conservation and environmental features in the project including desiccant wheels dehumidification for fresh air, automatic static pressure reset control for air supply, free air cooling system for large server rooms, heat recovery system for condensate, brushless motor for fan coil units, light-emitting diode type down lights and landscape lights, task lighting, lift power



regeneration system and sun tracking light pipes. Besides, renewable energy technologies including photovoltaic system, solar hot water system, solar chimney and daylight sun-tubes will be used for environmental benefits.



For greening, we will provide landscaping in the appropriate areas at ground floor, covered elevated walkway and the main roof of the future Trade and Industry Tower. In addition, we will also provide vertical greening on the building facades. The overall greening ratio will cover more than 30% of the site area. For recycled and other environmental features, we will adopt rainwater for landscape irrigation, automatic refuse collection system and low Volatile Organic Compound(VOC) emitting materials including carpet, composite wood and agrifiber products.



In examining the site utilization of different development projects, the Agency continued to ensure that the proposed projects optimised the development potential of the sites and would cater for the user departments' present and future needs. Where the proposals involve the re-provisioning of any existing facilities, consideration will be given to the beneficial use of the existing accommodation after re-provisioning. The Agency also reminds the related departments of the need to follow EPD's guidelines in addressing environmental concerns when they draw up their development proposals.

7.7 Reuse of Fittings and Fixtures in Released or Newly Leased Properties



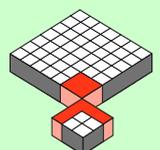
In vacating leased-in premises, the Agency has taken the initiative to encourage landlords to retain existing fittings or fixtures for use by future occupants. In de-leasing an office unit in Kwun Tong, the Agency negotiated with the landlord to minimise the outgoing tenant's reinstatement liabilities such that the future tenant can make gainful use of the existing fittings.

For leased-out surplus quarters, the Agency has adopted a flexible approach in requiring outgoing tenants to fulfill their reinstatement obligations. For fittings or fixtures which are still in good condition and useful to incoming tenants, the Agency will waive the tenant's reinstatement obligation. Apart from reducing construction waste, the arrangement also improves the marketability of the quarters for future leasing. Separately, the Agency has also disposed of surplus quarters in "as-is" conditions.

In new leasing cases, the Agency liaises with the works agent and landlords to examine the possibility of retaining existing fittings or fixtures for use.

7.8 Reduction of Energy Consumption in Leased Properties

In some of the tenancy agreements of leased-in premises, the upper limit of air-conditioning temperature provided was previously specified by the landlord at 23.5°C. Given that the room temperature for Government accommodation is now generally maintained at 25.5°C during the summer months and to support energy-saving, the Agency now requests all new leasing or renewal cases to adopt the 25.5°C limit.





In line with Government's policy on energy-saving, the Agency encouraged tenants of our premises to follow the Government's practice in setting the air-conditioned temperature in all areas in the building at 25.5°C during the summer months and to frequently check and adjust the room temperature to avoid excessive cooling.

7.9 Green Housekeeping in GPA's Offices



Electronic mailing has been widely used by the Agency for communication and information dissemination within the office and with outside parties. The Agency has continued to use 100% recycled paper, adopt double-sided printing, collect waste paper for recycling and use recycled toner cartridges for all computer printers.

In the replacement of computer equipment, the Government Logistics Department (GLD) now supplies new computer equipment with energy-saving features through bulk purchase contracts. New network printers with double-sided printing functions have replaced old ones. This practice has been in place for all newly acquired printers since 2007.

The Agency continues to re-circulate notices on environmental policies and green activities as well as circulars on housekeeping measures and energy conservation to all staff periodically through the intranet to remind them of proper green housekeeping measures.

As a user department in Revenue Tower, the Agency participates fully in EPD's programme of Source Separation of Commercial and Industrial Waste. The Agency has instructed the PMA concerned to collect separately recyclable waste paper, plastics and metals.

In paper consumption, the Agency maintained a similar level of paper consumption in 2013 as compared with that in the preceding year. The Agency anticipates that the room for further significant reduction in coming years may be limited as we have already reduced paper consumption for several years, and have initiated practically all necessary measures to reduce paper consumption.



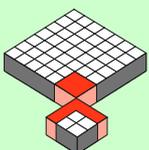
On water-saving, devices such as sensor faucets, dual water cisterns are used in JUBs. The Agency continues to use self-closing taps in toilets of the Agency. Notices have been posted inside pantries and toilets of the Agency to remind staff about water-saving.

7.10 Tender Specifications for Partition Screens and Workstation Panels



In scrutinizing the fitting-out of Government offices, the Agency stipulated the inclusion of environmental friendly features in GLD's tender specifications for partition screens and workstation panels:

- Wooden panels used in making partition screens and workstation panels should meet the low formaldehyde content/emission requirement of Class E1.
- All work stations feature energy-saving fluorescent tubes (T5 type) as task lights.
- Screen panels of computer equipment feature an off-switch to facilitate switching off when the equipment is not in use.



7.11 Clean Air Charter

In line with Commitment 4 of the Clean Air Charter which states that Government bureaux and departments undertake to adopt energy-efficient measures in their operations, the Agency will continue to adopt energy-efficient measures in all its practices as set out above and in accordance with the Environmental Policies in order to contribute towards improving the air quality of the territory.

7.12 Carbon Audit

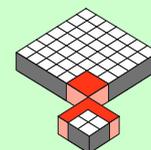


Climate change has become a major challenge to the international community. With reference to internationally recognised guidelines, EPD and EMSD have produced their own guidelines for carbon audit of buildings in Hong Kong. The guidelines assist users and managers of buildings to improve the awareness of greenhouse gas emissions and to actively participate in combating climate change. The Agency supports the initiative and has nominated office buildings under its management to participate in the annual audit. Carbon audit was carried out in 47 nos. of JUBs and 57 quarters in 2013. Out of the 47 JUBs, 21 of them recorded decreases of about 0.04% - 86.89% in greenhouse gas emission while the other 26 JUBS recorded increases of about 0.37% - 182.67%. Out of the 57 quarters, 38 of them recorded decreases of about 0.06 - 96.1% in greenhouse gas emission while the other 19 quarters recorded increases of about 0.36% - 33.65%. The increases were mainly due to more electricity consumption arisen from additional electrical installations (mainly server rooms and their resultant 24-hour air-conditioning supply), extended air-conditioning for overtime work, renovation works and higher occupancy rates etc. To improve the performance in future, the Agency will continue to launch programmes on floor-to-floor source separation of waste and recycling, and explore further energy-saving measures in all JUBs and quarters.

7.13 Green Activities organised by GMC



The Agency introduced green corners in its own office and the ground floor lobby of the Revenue Tower. Agency staff and visitors were able to get acquainted with the new energy-efficient technologies and sustainable designs implemented in both new and existing Government office buildings.



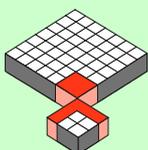
8. Awards for 2013



The Agency won a number of environmental awards in 2013. Appreciations in Old Clothing Recycling by the Salvation Army were awarded to Old Bailey Street Police Married Quarters, Kwai Fuk Court, Kwai Yung Court, Lai King Disciplined Services Quarters, Sheung Shui Disciplined Services Quarters, Sheung Shui Police Married Quarters, Tsing Yi Police Married Quarters, Yuen Long Police Married Quarters and Shun Lee Disciplined Services Quarters.

In response to EPD's launch of the 2008 Hong Kong Awards for Environmental Excellence Scheme, the Agency actively participated in the competition on the Sectoral Awards in the Public Sector and NGOs group. The Agency made arrangements for the buildings under its management to obtain Indoor Air Quality certification annually. All the JUBs suitable for such monitoring achieved "Good" Class of Indoor Air Quality in 2013.

Also in support of the Scheme, the Agency arranged for its PMAs to participate in Property Management Sector Awards and to apply for the respective labels for JUBs.



9. Environmental Targets for 2014 onwards



The Agency will continue to implement the following measures to promote environmental protection in the coming years:

- In collaboration with works agents, incorporate sustainability and energy-saving features in the design and construction of new Government office buildings and renovation projects.
- Facilitate implementation of energy-saving and renewable energy projects developed in collaboration with works agents in Government buildings.
- Implement greening in Government buildings where practicable.
- Monitor electricity consumption and issue statistics to BMCs of JUBs each month to enhance the monitoring of energy consumption levels and facilitate the implementation of energy-saving measures.
- Carry out energy audit and re-audit in JUBs, and implement action plans for further energy-saving measures in conjunction with works agents and PMAs.
- Maintain the indoor air-conditioning temperature of Government offices at 25.5°C in summer and shorten the operating hours of chillers as far as possible by rationalizing the working hours of bureaux/departments in JUBs.
- Reduce the illumination level of common areas in JUBs outside office hours.
- Reduce the number of lifts and escalators in operation in JUBs during off-peak hours to a minimum without interrupting the normal service level.

- Implement waste separation and recycling programmes in all JUBs and quarters and compile monthly records on waste quantities for effective monitoring of performance.
- Conduct at least two environmental awareness activities annually in each JUB or quarters building.
- Continue to procure energy-efficient domestic electrical appliances which meet Energy Label Grades 1 or 2 under the Energy Efficiency Labeling Scheme operated by EMSD.
- Maintain the condition in tenancy agreements of Government canteens requiring canteen operators not to use single-use and non-decomposable lunch boxes.
- Keep up green housekeeping measures such as using intranet for distribution of circulars and notices to all staff, reduce paper, electricity and water consumption, use 100% recycled paper and recycled toner cartridges for all printers, and regularly remind staff of housekeeping rules.
- Carry out annual internal environmental audit and review the findings to identify necessary improvements.
- Conduct environmental awareness activities annually for staff in the Agency.
- Carry out planning and feasibility studies on the use of state-of-the-art energy-efficient designs and technologies.
- Carry out carbon audit on JUBs.
- Continue to support and participate in environmental awards schemes including the Hong Kong Awards for Environmental Excellence Scheme organised by the Environmental Campaign Committee (ECC).

10. Comments and Suggestions

We welcome comments and suggestions regarding the report and environmental initiatives of the Agency. Please contact the Agency by phone through Mr. Thomas Chan, Secretary of the Green Management Committee (telephone number 2594-7756) or Mr. Oliver Tsoi, Deputy Departmental Secretary (Administration) (telephone number 2594-7605) or by sending e-mail to enquiry@gpa.gov.hk.

