Office of the Government Chief Information Officer <u>Environmental Report 2022</u>

Introduction

This report lists out the major green management measures taken by the Office of the Government Chief Information Officer in 2022.

Our Environmental Goal

- 2. The missions of the Office of the Government Chief Information Officer are to:
 - deliver effective, secure and citizen-oriented e-Government Services;
 - nurture and develop Information and Communications
 Technology (ICT) talent and professionalism in Hong Kong;
 - develop a vibrant ICT industry and promote high-tier data centres, cloud computing services, big data and cyber security awareness;
 - develop Hong Kong into a world-class smart city; and
 - promote a digitally inclusive, knowledge-based society.
- 3. Our environmental policy is to conduct business in an environmentally responsible manner. We aim to contribute towards environmental protection by promoting the wider use of information technology (IT), the use of environmental-friendly computer products and services within the community and the IT industry, and green data centre management in the Government.
- 4. This Office is also committed to providing a green office environment at the workplace and to ensuring that our operation is conducted in an environmentally conscious and responsible manner. We also educate our staff to ensure that they are aware of our departmental environmental policy and initiatives as well their responsibilities such that they can participate actively in protecting the environment.

Green Measures and Performance in 2022

Green Computing

- 5. OGCIO is committed to the support of green computing initiatives. OGCIO advises government bureaux and departments on the use of green computing initiatives. Some of the initiatives which the Government have implemented are:
 - adopting energy-efficient computers;
 - using paperless meeting solutions;
 - promulgating Practice Guide to IT Operations Management that includes green management;
 - considering the green options when making a purchase decision;
 - conducting public awareness programmes on the reuse and recycling of obsolete computers; and
 - encouraging the use of planning and resource management systems to optimise waste collection and disposal.
- 6. To support green computing technologies, we have incorporated green requirements in the procurement of IT products. Under the IT product contracts arranged centrally by OGCIO and the Government Logistics Department, we have required the IT products supplied by the contractors, where appropriate, to have energy saving or power management features and to comply with green requirements.
- 7. In the context of green data centres, OGCIO has promulgated the Green Data Centres Practice Guide and BEAM Plus Data Centres Assessment Tool developed by the BEAM Society Limited to data centre industry practitioners, as well as government bureaux and departments for their reference and adoption with a view to improving the energy efficiency and environmental performance of their data centres. The Government Data Centre Complex constructed has adopted the latest green data centre practices and achieved the "Gold" rating in the provisional assessment under the BEAM Plus Data Centres Assessment Tool v1.0.

8. To contribute towards environmental protection by promoting the wider use of IT, we have rolled out e-Procurement System and Electronic Recordkeeping System (ERKS) to 41 and 7 bureaux / departments respectively as at December 2022.

Green Practices in Internal Operations

9. In support of the Government's efforts to protect the environment, this Office is committed to ensuring that our internal operations are conforming to environmental protection principles and practices. In 2022, we continued to adopt the following green practices:

(A) Reduction of Paper Consumption

We have made every effort in carrying out the following measures to reduce paper consumption. 100% of the paper used are recycled paper in 2022. In addition, the total consumption of paper decreased by 7% when compared to 2021.

(i) Information Dissemination by Electronic Means

- Uploaded reports and paper onto the OGCIO website for access by the public;
- Disseminated internal circulars and notices through OGCIO intranet:
- Uploaded OGCIO Circulars onto the Government's intranet portal "Central Cyber Government Office" (CCGO) for access by government users;
- Automated internal workflows, including processing leave applications, training nominations, human resources management, inventory management, IT system funding applications, and preparing replies to LegCo through electronic systems;
- Used emails for internal and external correspondence and transmission of documents and electronic files;
- Maintained electronic records using an ERKS;
- Used paperless meeting solutions;
- Used e-Fax solution;
- Provided e-Books and e-Learning materials;

- Encouraged staff to review reports and publication online, e.g.
 Budget, Policy Address; and
- Used larger computer monitors to encourage online reading than printing, etc.

(ii) Economy in Use of Paper

- Produced the least number of printout and photocopies;
- Used recycled paper and minimise the use of virgin paper;
- Used double-sided printing / photocopying;
- Used the blank side of used paper for drafting, printing and photocopying;
- Used existing sets of document for re-circulation; reused envelopes, tags, file covers and loose minute jackets; and
- Used plain paper fax machines and avoid using fax leader pages.

(B) Energy Conservation

- Lowered window blinds or applied reflective films on windows to reduce solar gain;
- Switched off non-essential lighting in ancillary areas beyond office hours;
- Conducted routine checking to ensure switching off of unnecessary lighting, air conditioners, photocopiers, etc.;
- Turned off unnecessary equipment completely and avoid using standby mode;
- Set office equipment to enter the power-saving mode or to switch off automatically after it has been idle for a certain period of time;
- Switched off lights, air conditioners and electric equipment when not in use;
- Used high efficiency Light Emitting Diode (LED) and fluorescent tubes with open louver type diffusers;
- Implemented intelligent sensors based on motion detection to control lighting;
- Used demand control of chilled water circulation system to manage the switching on and off of chillers and pumps of data centres to reduce energy consumption;

- Adjusted the temperature set point of Computer Room Air Handler of data centres for better energy efficiency;
- Enhanced airflow management and used cold aisle containments in data centre halls for better cooling efficiency to save energy;
- Used environmental and power management systems in data centres to monitor and improve energy efficiency; and
- Used overhead cabling for network cables installation in data centres to reduce obstruction to cooling airflow under raised floor in order to improve cooling efficiency and reduce energy consumption.

(C) Waste Management

- Collected used paper, newspaper, printer toner cartridges for recycling;
- Deployed network printers in workspace for paper and toner consumption monitoring to avoid overstock waste;
- Reused carton boxes to collect waste recovery items; and
- Arranged trade-in, auction or recycling of surplus furniture and obsolete equipment as appropriate.

(D) Green Procurement

- Procured computers and office equipment with Energy Efficiency labels;
- Procured environmental friendly products which are durable and recyclable, e.g. recyclable laser printer toner cartridges, refillable ball pens; and
- Used the e-Procurement System for the purchase of various goods and services.
- Took into account environmental considerations when procuring goods and service and adopted green specifications for products where such specifications have been promulgated by Environmental Protection Department (EPD).

(E) Carbon Audit

 Information provided to the Building Management Office of the premises housing the OGCIO's offices to facilitate the collection of carbon emission data.

(F) Air Quality

We are committed to making sustainable improvement to air quality to fulfill the commitments of the Clean Air Charter. Measures include:

- Unleaded fuel was used by our departmental vehicles. Drivers were reminded of the requirement to switch off the vehicle engines while waiting;
- Staff were reminded to use public transport whenever possible;
- Installed air purifiers in the offices; and
- Used electric fans to improve ventilation of workplaces.

We successfully got "Excellent" and "Good" indoor air quality certificate issued to all eleven offices.

(G) Publicity / Education

- Displayed posters and other promotional materials to promote environmental awareness among staff;
- Circulated guidelines on green environment to staff regularly;
 and
- Provided Green Data Centres Practice Guide for government bureaux and departments' reference in achieving a green data centre environment and the document was also made available on OGCIO homepage for reference by the public and the industry.

(H) Other Measures

- Sent festival greeting cards electronically and stored holiday decorations such as plastic Christmas trees and ornaments for reuse next year;
- Preset black and white mode for photocopying;

- Avoided provision of bottled water during meetings;
- Used recycled white paper (instead of non-recycled white paper) as major paper source; and
- Conducted online meetings and webinars as appropriate to reduce the need to travel.

Green Targets in Future

- 10. We will continue to identify new initiatives to make our working environment an environmentally responsible one. To ensure that green efforts will be maintained, we are committed to -
 - a wider use of electronic measures/ workspace to enhance operation efficiency and minimise the use of paper and energy;
 - incorporating green requirements in the procurement of IT products and continually strengthening the specifications having regard to the development of green computing standards and sufficient choice of products in the market;
 - adopting effective green and energy-efficient measures to provide a green working environment;
 - implementing measures to effectively monitor environmental conditions in data centres to strive for better energy efficiency; and
 - incorporating green requirements and high energy efficiency in enhancing facilities of data centres.
- 11. We will review the existing environmental practices regularly to enhance our effectiveness in environmental conservation. We will also encourage staff to participate in environmental friendly activities in order to arouse environmental awareness among all stakeholders.

Office of the Government Chief Information Officer 2023