

粉岭皇后山邨
Queens Hill Estate, Fanling

Environmental Report

环保报告



粉岭山丽苑
Shan Lai Court, Fanling



管治架构

房屋署环保健康安全委员会由房屋署署长担任主席，负责就房委会的环境、健康、安全及可持续发展事宜制订政策和策略方针。

绿色建筑认证

房委会设计和建造的建筑物，必须符合香港绿色建筑议会绿建环评新建建筑的评估标准。这项评估用于评核新建建筑物生命周期内的环保特性。我们的目标是让所有新建建筑物达到金级标准或以上。2024/25年度落成的建筑物所获的绿建环评新建建筑评级表列于下页：



绿色生活



环保工作目标



Green Living



Environmental Targets

Governance

Chaired by the Director of Housing, the Housing Department Environmental, Health and Safety Committee is responsible for developing and formulating policies and strategic directions in the areas of environment, health, safety and sustainability of HA.

Green Building Recognition

Buildings designed and constructed by HA must meet the assessment criteria of the Hong Kong Green Buildings Council (HKGBC)'s Building Environmental Assessment Method Plus for New Buildings (BEAM Plus NB), which provides a lifecycle assessment of the environmental attributes of new buildings. We aim for achieving the Gold rating standard or above for all new buildings. The BEAM Plus NB ratings for buildings completed in 2024/25 are shown in the table on the next page:

建筑项目 Project

新建建筑 1.2 版暂定评级 (金级) NB V1.2 Provisional Assessment (Gold)

葵涌大窝口道公营房屋发展计划第一期 Public Housing Development at Tai Wo Hau Road Phase 1, Kwai Chung

葵涌大窝口道公营房屋发展计划第二期 Public Housing Development at Tai Wo Hau Road Phase 2, Kwai Chung

观塘德田街公营房屋发展计划 Public Housing Development at Tak Tin Street, Kwun Tong

新建建筑 2.0 版暂定评级 (金级) NB V2.0 Provisional Assessment (Gold)

东涌第 109 区公营房屋发展计划 Public Housing Development at Tung Chung Area 109

启德第 2B3 号地盘公营房屋发展计划 Public Housing Development at Kai Tak Site 2B3

启德第 2B4 号地盘公营房屋发展计划 Public Housing Development at Kai Tak Site 2B4

乐富联合道公营房屋发展计划 Public Housing Development at Junction Road, Lok Fu

葵涌石梨街公营房屋发展计划 Public Housing Development at Shek Li Street, Kwai Chung

将军澳影业路公营房屋发展计划 Public Housing Development at Ying Yip Road, Tseung Kwan O

东涌第 42 区公营房屋发展计划第一期和第二期 Public Housing Development at Tung Chung Area 42 Phases 1 and 2

粉岭新运路公营房屋发展计划 Public Housing Development at San Wan Road, Fanling

美东邨 (较旧部分) 重建计划 Redevelopment of Mei Tung Estate (Older Part)

薄扶林南华景街公营房屋发展计划 Public Housing Development at Wah King Street, Pok Fu Lam South

元朗横洲 B 号地盘公营房屋发展计划 Public Housing Development at Wang Chau Site B, Yuen Long

新建建筑 1.2 版最终评级 (金级) NB V1.2 Final Assessment (Gold)

启翔苑 Kai Cheung Court

锦骏苑 Kam Chun Court

和田邨 Wo Tin Estate **1**

菁田邨 Ching Tin Estate

荔景邨恒景楼 Heng King House, Lai King Estate

裕雅苑 Yu Nga Court

丽瑶邨喜瑶楼 Hei Yiu House, Lai Yiu Estate

愉德苑 Yu Tak Court

新建建筑 2.0 版最终评级 (铂金级) NB V2.0 Final Assessment (Platinum)

青富苑 Ching Fu Court **2**



屯门和田邨
Wo Tin Estate, Tuen Mun



青衣青富苑
Ching Fu Court, Tsing Yi

零灌溉系统 — 节约用水

零灌溉系统收集雨水，用以浇灌花圃，大大节省保养屋邨绿化空间的耗水量。零灌溉系统自2016年起用于新公营房屋项目，截至2024/25年度完结，合共44个屋邨已装设该系统。

微气候研究与空气流通评估

为作出更佳的环境决策，我们在设计屋邨时进行微气候研究及空气流通评估，以检视地盘和建筑物的各项环境因素，例如风气流、建筑物自然通风、日光照射、热舒适度、空气污染物排放等。此举有助我们优化设计，减少能源消耗和碳排放。

Zero Irrigation System (ZIS) – Water conservation

ZIS is an irrigation system for planters that collects and reuses rainwater, significantly reducing the amount of water needed to maintain estate greenery. ZIS has been used in new public housing projects since 2016. By the end of 2024/25, ZIS had been installed in 44 estates.

Micro-climate studies & Air Ventilation Assessment

To make better environmental decisions when designing estates, we use micro-climate studies and Air Ventilation Assessments for environmental factors such as wind flow, natural building ventilation, daylight penetration, thermal comfort, and air pollutant emissions in relation to estate sites and buildings. This facilitates a better design for reductions in lowering energy usage and carbon emissions.

启德启欣苑设置零灌溉系统，植物生长茂盛
A flourishing garden adopted ZIS at Kai Yan Court, Kai Tak



将军澳昭明苑平台花槽设有零灌溉系统
Podium planters utilising ZIS at Chiu Ming Court, Tseung Kwan O



位于上水的零灌溉系统
Planters with ZIS in Sheung Shui



大埔富蝶邨善用布局，在住宅大厦间留下通风走廊，加强自然通风
The domestic blocks at Fu Tip Estate, Tai Po are positioned to form open breezeways for better natural ventilation

环保材料

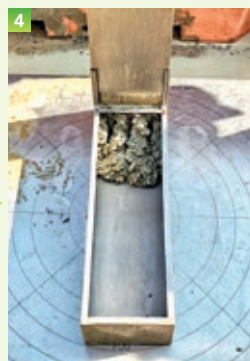
我们多年来强制使用绿色建材，以粒化高炉矿渣粉，取代35%用于建造预制外墙、预制楼梯、预制板间墙、预制混凝土板和预制垃圾槽的水泥。我们最近与学者和本地混凝土供应商探讨以大量粒化高炉矿渣粉取代水泥的可行性，并扩展其应用范围至公营房屋项目的地基桩柱、桩帽和其他混凝土构件。

新工程项目采用的环保材料规格，均与「绿建环评新建建筑2.0版」所订的标准一致，并定期检讨更新，以符合香港绿色建筑议会「绿色产品认证及标准计划」的准则。

Green materials

Over the years, 35% of the cement used to produce precast facades, precast staircases, precast partition walls, precast concrete panels and precast refuse chutes has been replaced by the mandatory use of green construction material Ground Granular Blast-furnace Slag (GGBS). Currently, we are working with academics and local concrete suppliers to explore the possibility of using high volumes of GGBS to replace cement, and extending its application to foundation piles, pile caps and other concrete members in public housing developments.

The specifications for green materials that are included in our new works projects are all aligned with BEAM Plus for New Buildings version 2.0. We regularly review and update our specifications to align with the HKGBC's Green Product Accreditation & Standards Scheme.



我们的合作研发机构在先导计划的试验桩应用粒化高炉矿渣粉前，就不同配比的矿渣粉混凝土配方进行测试（左起）
Our collaborative research institute conducted tests on different GGBS concrete formulations (from left) before applying GGBS to the test piles of a pilot project

碳排放量估算

碳排放量估算让我们估算楼宇在生命周期内的二氧化碳排放量，相关资讯可用作减少碳排放；也有助在整个项目周期中，为个别住宅大厦以至整个屋邨订立碳排放量基准，方便比较不同大厦和屋邨的碳排放表现。

施工期间耗用材料、制造楼宇结构材料、公用屋宇装备装置耗电，以至拆卸工程，均会产生二氧化碳。碳排放量估算涵盖上述各项的二氧化碳排放量，并计及使用可再生能源和绿化活动所抵销的排放量。这些数据对制订可行的改进方案及优化屋邨设计的长远持续发展，至为重要。

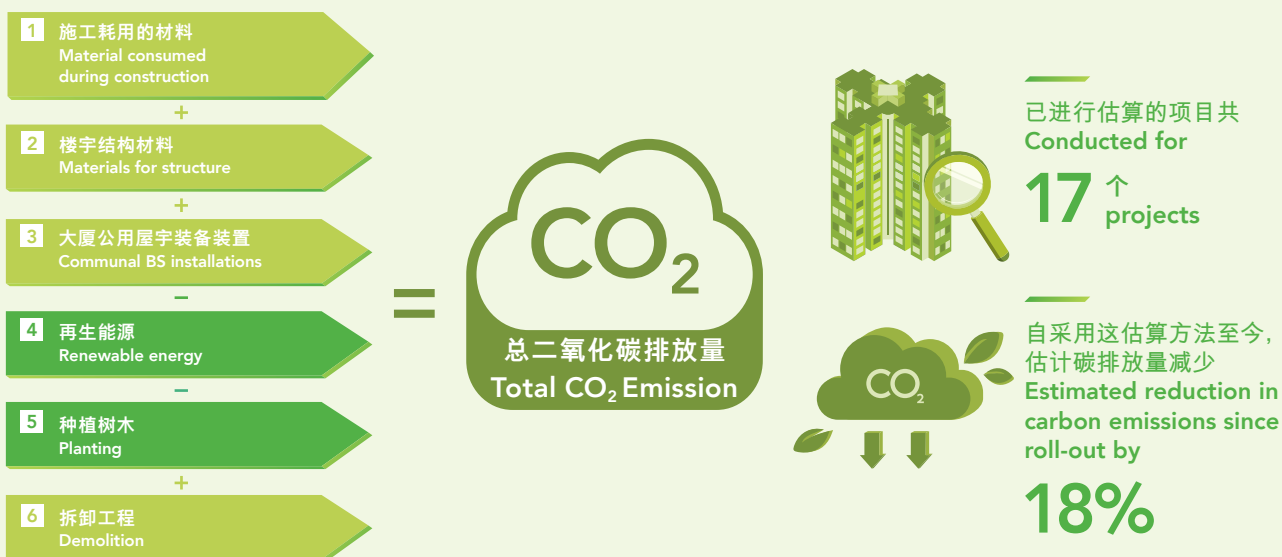
Carbon Emission Estimation (CEE)

The CEE enables us to assess the carbon dioxide emissions of buildings over their life cycles, information that can be used to reduce carbon emissions. Implementing the CEE allows us to establish emission benchmarks for both individual housing blocks and entire housing estates throughout the project cycle. These benchmarks facilitate comparisons of the emissions performances across various buildings and estates.

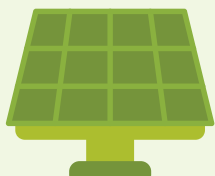
The CEE encompasses carbon dioxide emissions arising from materials consumed during construction, materials used in structures, the electricity consumed by communal building services (BS) installations, and demolition activities. It also considers the emission off-sets generated by renewable energy applications and greening activities. This data is vital for setting achievable improvement goals and enhancing the long-term sustainability of our estate designs.

碳排放量估算

Carbon Emission Estimation



光伏发电系统 PV Systems



已安装于 **162** 幢新住宅大厦，
总发电容量为
Installed in 162 new domestic blocks,
with a total system capacity of
1 486 千瓦
kW



东区小西湾邨的柔性太阳能光伏发电系统
A flexible PV system at Siu Sai Wan Estate in
Eastern District

可再生能源

我们十多年来为新建公共屋邨安装已接驳电网的太阳能光伏发电系统，并参与本港电力公司的上网电价计划。这些光伏系统以可再生能源发电，目前的供电量不少于每幢大厦公用电力需求的1.5%。

2024/25年度，我们在现有公屋大厦加装28个柔性太阳能光伏发电系统，并继续在现有屋邨物色其他合适大厦，安装光伏发电系统。

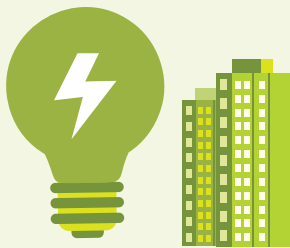
Renewable energy

We have been installing grid-connected photovoltaic (PV) systems in new PRH estates for over a decade, as well as participating in the feed-in tariff schemes of Hong Kong's electricity supply companies. Currently, our PV systems are producing renewable energy that accounts for at least 1.5% of each building's communal electricity consumption.

In 2024/25, we retrofitted another 28 flexible solar PV systems at existing PRH blocks. We will continue to identify other PRH blocks in existing estates that are suitable for PV systems.



将军澳昭明苑
Chiu Ming Court, Tseung Kwan O



设计阶段的49幢住宅大厦中，
公用地方屋宇装备装置的平均能源消耗量设定为
Average energy consumption of
BS installations in communal areas of
49 domestic blocks at design stage is

每年每平方米
20.63 千瓦时
kWh/m²/per annum

节约能源

房委会屋邨住宅和非住宅范围的无障碍通道已设置二级光度照明系统和高效节能发光二极管（即LED）照明器。新升降机系统以高效节能的无齿轮装置驱动，配备永磁同步电机，效率更高、更可靠。此外，功率八千瓦或以上的升降机系统则配备再生电力功能。

公众教育方面，我们鼓励公屋租户养成习惯，在使用能源时更注重可持续发展原则。我们所有新建住宅大厦入口大堂均已安装「智能计量仪监控系统」，显示该大厦及邻近大厦每月的电力、煤气和食水耗用量，培养租户节能意识，并营造积极节能氛围，激励大家俭用能源。

现有公屋大厦公用地方的照明装置如有损坏，一律更换为发光二极管凸面照明器；至于传统的出口指示灯牌和方向指示灯牌，也更换为高效节能的发光二极管指示牌。

Energy conservation

Both domestic and non-domestic areas of HA estates utilise two-level lighting systems for barrier-free access, as well as energy-efficient LED luminaires. Our new lift systems run with energy-efficient gearless drives that utilise permanent magnet synchronous motors for enhanced efficiency and reliability, and regenerative power is used for lift systems with motor ratings of 8kW and above.

On the public education front, we encourage PRH tenants to adopt more sustainable energy habits. The Smart Meter Monitoring and Energy Information Display Systems being installed at the main entrance lobbies of all our new domestic blocks display each block's monthly consumption of electricity, gas and fresh water, as well as the consumption of neighbouring blocks. This information helps foster public awareness of energy conservation, and spurs friendly competition in energy-saving.

We continue to replace defective public lighting fixtures with LED bulkheads in all the communal areas of existing PRH blocks, as well as replacing conventional illuminated exit and directional signs with energy-efficient LED versions.

智能计量仪监控系统
A Smart Meter Monitoring and Energy
Information Display System

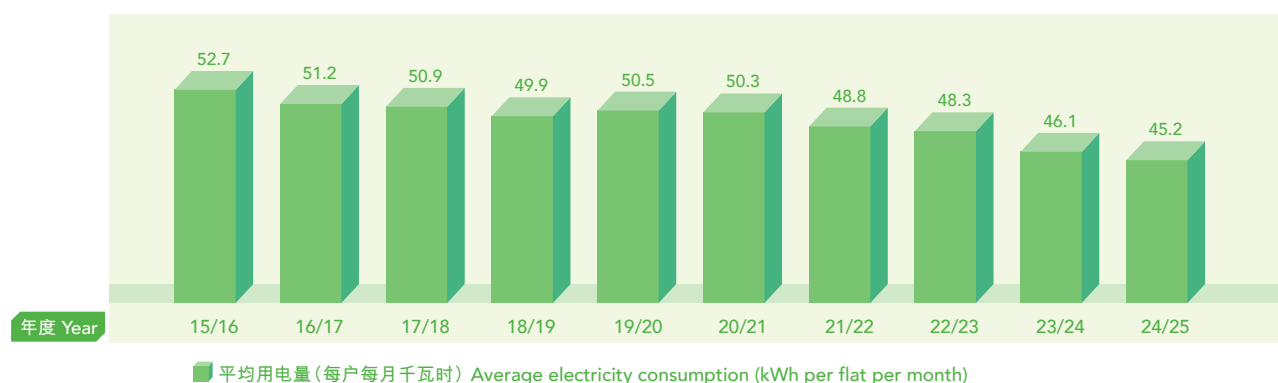


粉岭皇后山邨
Queens Hill Estate, Fanling



观塘坪石邨（左）和深水埗荣昌邨
Ping Shek Estate, Kwun Tong (left) and Wing Cheong Estate, Sham Shui Po

屋邨公众地方的用电量 Electricity consumption in the public areas of estates



碳审计工作

今年，我们继续为选定的14幢典型住宅大厦进行定期碳审计，监察碳排放情况。有见近年落成的非典型设计公屋大厦愈来愈多，房委会将根据其能源设计标准，挑选另外三幢非典型公屋大厦，纳入碳审计工作。

Carbon audit

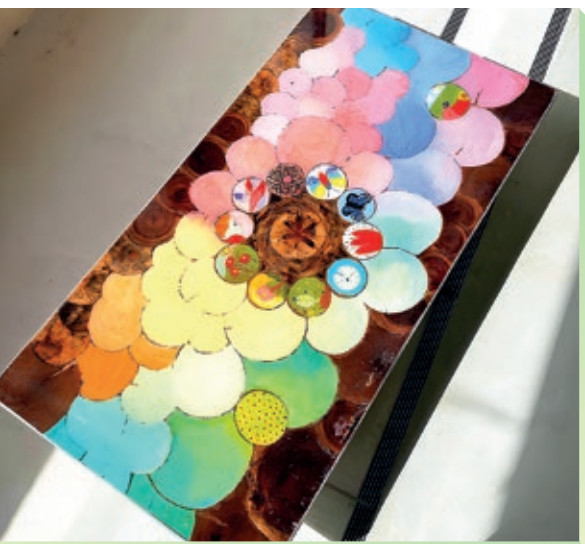
This year we continue to carry out regular carbon audit exercises in 14 selected typical domestic blocks to monitor their carbon emissions. Given the rising number of non-standard block designs introduced, we will select three more non-typical blocks for conducting carbon audits from the recently completed PRH projects based on the energy design standards adopted.



较2011/12年度

14幢典型住宅大厦的碳足迹平均
Against 2011/12 carbon footprint of
14 typical housing blocks on average

↓29%



青衣青康路北第一、二期公营房屋发展计划所砍伐的树木获回收，用于社区参与工作坊，制作艺术品和长凳
Felled wood from Phases 1 and 2 of Ching Hong Road North, Tsing Yi was salvaged and used in community engagement workshop to produce artworks and wooden benches

公共屋邨的绿化环境与 树木管理工作

园林废物处理及升级再造

在新建房屋项目工地和现有公共屋邨砍伐树木后，适用的木材将送往由环境保护署营运的园林废物回收中心「林·区」，切碎后再造成盖土物或其他合适产品。

绿化改善工作

年内我们在20个公共屋邨进行绿化改善工作，铺设草坪和栽种多款花卉植物，营造绿意盎然、空气清新宜居环境、静谧的休憩处，供居民享用。

为确保邨内树木健康生长，不会危及居民安全，我们每年都进行树木风险评估。检查员通过房委会网上「企业树木管理系统」的流动應用程式，可轻易找到树木位置并记录树木状况。房委会中央电子树木数据库则利用「地理信息系统」，储存最新的树木数据。

我们定期邀请热心居民参与「屋邨树木大使」计划，协助监察树木，至今已招募约1 280名成员（包括约600名学生）。

Greening and Tree Management in PRH Estates

Yard waste treatment and upcycling

When trees are felled at our new housing project sites and existing PRH estates, suitable timber will be sent to Y • PARK, the yard waste recycling centre operated by the Environmental Protection Department, for shredding and recycling into mulch or other appropriate products.

Greening improvement

Greening improvements through the introduction of lawns and a diverse range of flowering plants were carried out at 20 PRH estates during the year. Such improvements helped create pleasant living environments, offering lush greenery, fresh air, and peaceful spots for residents to enjoy.

To ensure the trees on our estates remain healthy and pose no safety issues for residents, we carry out a tree risk assessment exercise every year. Using HA's web-based Enterprise Tree Management System via a mobile app, tree inspectors are able to easily locate individual trees and record their condition. HA's centralised electronic tree database, which utilises the Geographic Information System, keeps our tree data up to date.

We regularly invite keen local residents to join our Estate Tree Ambassador (ETA) scheme and help with our tree monitoring work. Currently there are about 1 280 ETAs (including around 600 pupils).

公屋租户齐参与

举办绿化活动

我们肩负的环保工作，还包括鼓励公屋居民关注环保和可持续发展议题、举办环保活动等，让租户为社区环保出一分力。年内，我们在10个屋邨举办植树日，在20个屋邨推行一系列绿化活动，并在10个屋邨推行社区农圃计划；又利用Facebook专页、房屋资讯频道、海报、横额等媒介，向居民宣传环保措施，加强公众教育。



小学生参与「屋邨树木大使」活动
An ETA activity joined by primary school pupils

Engaging PRH Tenants

Organising green activities

Among our environmental responsibilities are those of raising awareness of green and sustainability issues among our PRH communities, and organising green events that give tenants an opportunity to play their part in "going green". During the year, we organised tree planting days in 10 estates, held a series of greening activities in 20 estates, and conducted community garden programmes in 10 estates. Channels such as Facebook, the Housing Channel, and displays of posters and banners were used throughout the year to publicise our green initiatives and further our public education efforts.



荃湾石围角邨植树日
A Tree Planting Day at Shek Wai Kok Estate, Tsuen Wan

环保办公室 Green Offices



房委会办公室的用电量
(与2018/19基准年相比)

Electricity consumption in HA offices
(against the base year 2018/19)

↓13.92%

超过目标减幅的6% (与2018/19基准年相比)
Exceeded our target of a 6% reduction
(against the base year 2018/19)



房委会办公室的耗纸量

达到在运作环境相若的基础上维持
与2023/24年度水平相若的目标

Paper consumption
in HA offices –
Meeting the target of
maintaining comparable
consumption to that of
2023/24 under comparable
operating conditions



房委会总部的用水量

达到在运作环境相若的基础上维持
与2023/24年度水平相若的目标

Water consumption in HA
Headquarters (HAHQ) –
Meeting the target of
maintaining comparable
consumption to that of
2023/24 under comparable operating
conditions

统计数字摘要 Summary of Statistics

新工程项目及现有屋邨 New Works Projects and Existing Housing Estates

能源消耗 Energy Consumption				已消耗能源 Energy consumed					
现有屋邨的能源消耗量（千瓦时） Energy consumption in existing housing estates (kWh)									
屋邨公众地方的用电量 Electricity consumption in public areas of estates				425 160 420					
屋邨公众地方的平均用电量（每户每月） Average electricity consumption in public areas of estates (per flat/month)				45.20					
太阳能光伏板产生的可再生能源量 Renewable energy generated from PV panels				1 564 718					
建筑工程承建商的能源消耗量（千兆焦耳） Energy consumption by construction contractors (GJ)									
建筑活动的柴油消耗量 Diesel consumption for construction activities				2 105 598					
运送建筑废料的柴油消耗量 Diesel consumption for transportation of construction waste				4 215 278					
建筑活动的用电量 Electricity consumption for construction activities				50 005					
合约车辆的汽油消耗量 Gasoline consumption for contract cars				22 839					
温室气体排放 Greenhouse Gas (GHG) Emissions				2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
现有屋邨住宅大厦的温室气体排放强度（公吨二氧化碳当量 / 平方米） GHG emission intensity in existing housing domestic blocks (tonnes CO ₂ e/m ²)									
各住宅大厦类型的平均数 Average of domestic block types				0.024	0.024	0.024	0.023	0.022	0.021
水资源管理 Water Management				用水量 Water consumed		回收再用水量 Water recycled			
新工程项目（立方米） New works projects (m ³)				3 309 078		910 588			
现有屋邨公众地方（立方米） Public areas of existing housing estates (m ³)				2 373 904		—			
废物管理 Waste Management				处理方法 Handling Method					
				已回收循环再造 Recycled	已运往公众填土区 Public fill		已运往堆填区 Landfill		
新工程项目的废物处理量（公吨） Amount handled in new works projects (tonnes)									
有害废物 Hazardous waste				125.68		—		30.95	
非有害废物 Non-hazardous waste				694 311		2 307 454		480 579	
现有屋邨的废物处理量（公吨） Amount handled in existing housing estates (tonnes)									
非有害废物 Non-hazardous waste									
废纸 Paper				24 080		—		—	
塑胶 Plastic				2 540		—		—	
铝罐 Aluminium cans				1 890		—		—	
旧衣物 Used clothes				700		—		—	
玻璃樽 Glass bottles				535		—		—	
月饼盒 Mooncake boxes				11		—		—	

房委会办公地点 HA Office Premises

能源消耗 Energy Consumption

已消耗能源
Energy consumed

房委会办公室的能源消耗量 (千瓦时) Energy consumption in HA office premises (kWh)

用电量 Electricity consumption	30 760 586
平均用电量 (每名员工) Average electricity consumption (per staff)	3 040

物料使用 Materials Consumption

已使用物料
Materials consumed

房委会办公室的物料使用量 Materials consumption in HA office premises

耗纸量 (令 / 员工) Paper consumption (reams/staff)	12.54
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水资源管理 Water Management

用水
Water consumed

房委会办公室的用水量 (立方米) Water consumption in HA office premises (m³)

房委会总部 HAHQ	9 742
房委会总部 (每名员工) HAHQ (per staff)	2.35

废物管理 Waste Management

已回收循环再造
Recycled

已运往公众填土区
Public fill

已运往堆填区
Landfill

房委会总部的废物处理量 (公吨) Amount handled in HAHQ (tonnes)

有害废物 Hazardous waste			
碳粉盒 Toner cartridges	2	—	—
慳电胆及光管 Fluorescent lamps and tubes	2	—	—
非有害废物 Non-hazardous waste			
一般废物 General waste	—	—	157
废纸 Paper	143	—	—



将军澳昭明苑的平台花园
Podium garden of Chiu Ming Court,
Tseung Kwan O