

# Buildings Department Environmental Report

# 2023



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We are delighted to present the Environmental Report 2023 of the Buildings Department (BD). This annual publication shares our vision, commitment, and the latest progress we have made in fostering the development of a quality and sustainable built environment for Hong Kong.

The year 2023 marked a significant milestone for BD: the 30th anniversary of our establishment. Over the past three decades, we have remained dedicated to our mission of ensuring building safety, setting and enforcing safety, health and environmental standards for private buildings, and continuously improving the quality of building development. In 2023, we embraced the changing times by developing and launching new systems, as well as promulgating new measures to enhance our public services in building control and promote sustainability of the built environment.

Embracing the era of rapid technological evolution, BD is leading the development of the Electronic Submission Hub (ESH), a web-based collaborative platform designed to facilitate the preparation and processing of paperless submissions under the Buildings Ordinance (BO) (Cap. 123), while also promoting a greener environment. Following the successful launch of Stage 1 in June 2022, Stage 2 was launched on 31 March 2023, expanding the platform's capabilities to accept additional types of plan submissions and further reducing paper usage. We anticipate that Stage 3, the final stage, will be brought forward to be implemented by Q2 2024, allowing all types of plan submissions to be processed electronically via ESH.

Alongside with the development of ESH, BD issued the "Guidelines for using Building Information Modelling (BIM) in Statutory Plan Submissions (other than General Building Plan) 2023", which were jointly developed with the Construction Industry Council and published in May 2023. To further promote the integration of BIM and encourage electronic submissions, BD is also collaborating with the Lands Department (LandsD) to develop a plug-in tool for the automatic checking of floor areas stipulated under the BO as well as the lease. This tool is targeted to be launched in Q1 2024, with more plan-checking tools in development.



To further promote green buildings, BD introduced an enhanced gross floor area (GFA) concession mechanism in September 2023, which will come into effect on 30 June 2024. This new mechanism requires private development projects to achieve a specific Building Environmental Assessment Method (BEAM) Plus rating or comply with new specific standards on quality built environment to qualify for a 10% GFA concession.

In our continuous efforts to enhance the built environment, BD is reviewing the requirements pertaining to ventilation, access for external maintenance, prevention of water seepage, combustibility of building-integrated photovoltaic (BIPV) systems, etc.

I would like to take this opportunity to thank our staff and external partners for their contributions and support over the years. As we embark on our next sustainability chapter, I invite everyone to join hands with BD and 'Go the Extra Mile' together, to continue building a more sustainable future for our community.

**Ms YU Po-mei, Clarice, JP**  
Director of Buildings

## SUSTAINABLE ORGANISATION

### 1.1. Our Approach

**Our Vision:** To make the built environment safe and healthy for our community.

**Our Mission:** To set and enforce safety, health and environmental standards for private buildings.

**Our Culture:** To go the extra mile in serving our customers and the community in general.

BD is committed to promoting building safety, developing and enforcing safety, health, and environmental standards for private buildings, striving to improve the quality and sustainability of our built environment. We firmly uphold core responsibilities under the remit of the BO, as well as playing an active role in supporting relevant initiatives and policies of the Government.

### 1.2. Management Commitment

BD endeavours to cultivate a sustainable culture within and beyond the organisation through a robust sustainability management mechanism with an aim to support the Government's sustainability agenda. The Director of Buildings, together with the senior management - including a Deputy Director and six Assistant Directors - plays a pivotal role in decision making on key policies that encompass economic, social, environmental and sustainability aspects.

The approach of collaboration and harmonisation is well embedded in BD's management mechanism, driving our implementation of sustainability-related programmes. Our senior management team regularly reviews existing policies and assesses social and environmental performance to identify potential impacts on sustainability-related matters through maintaining active communication with different stakeholders.

We have been an Associate Member of the Hong Kong Green Building Council since 2010 and have actively participated in its Committee work to promote environmental performance assessment.



## SUSTAINABLE BUILT ENVIRONMENT

It is our strategy to set out our statutory requirements as well as administrative guidelines to support the development of a sustainable built environment and to facilitate the adaptive re-use of heritage buildings with the aim of providing a quality living and built environment for both present and future generations of Hong Kong.

### 2.1. Modernising Building Design Standards

As an ongoing initiative of enhancing sustainable development, we are continuously reviewing and proposing revisions to building standards as needed. This is to implement a performance-based building control system and enhance the standards for the design and construction of buildings and associated works under the BO.

Targets	Performance in 2023
<ul style="list-style-type: none"> <li>● <i>Review of the Building (Planning) Regulations</i></li> </ul>	<ul style="list-style-type: none"> <li>◆ The review to convert the prescriptive requirements into performance-based standards was ongoing.</li> </ul>
<ul style="list-style-type: none"> <li>● <i>Review of the Building (Standards of Sanitary Fitments, Plumbing, Drainage Works and Latrines) Regulations</i></li> </ul>	<ul style="list-style-type: none"> <li>◆ The second stage of legislative amendments resulting from the review was targeted to be submitted to the Legislative Council (LegCo) in 2024.</li> </ul>
<ul style="list-style-type: none"> <li>● <i>Formulation of a Code of Practice on Seismic-resistant Design Standards for Buildings in Hong Kong (Seismic Code)</i></li> </ul>	<ul style="list-style-type: none"> <li>◆ The formulation of the Seismic Code, which would provide technical guidance for the design and construction of seismic-resistant buildings, was underway. If necessary, legislative amendment would be proposed to support the implementation of the Code.</li> </ul>
<ul style="list-style-type: none"> <li>● <i>Review of Building Energy Efficiency requirements</i></li> </ul> <p>To review the Residential Thermal Transfer Value (RTTV) and Overall Thermal Transfer Value (OTTV) in accordance with the “Energy Saving Plan for Hong Kong’s Built Environment 2015~2025+”.</p>	<ul style="list-style-type: none"> <li>◆ The RTTV standards were reviewed and tightened up in February 2022 and the next review would be completed by 2030.</li> <li>◆ The OTTV standards were reviewed and tightened up in August 2019 and we would complete the next review on OTTV before 2025.</li> </ul>

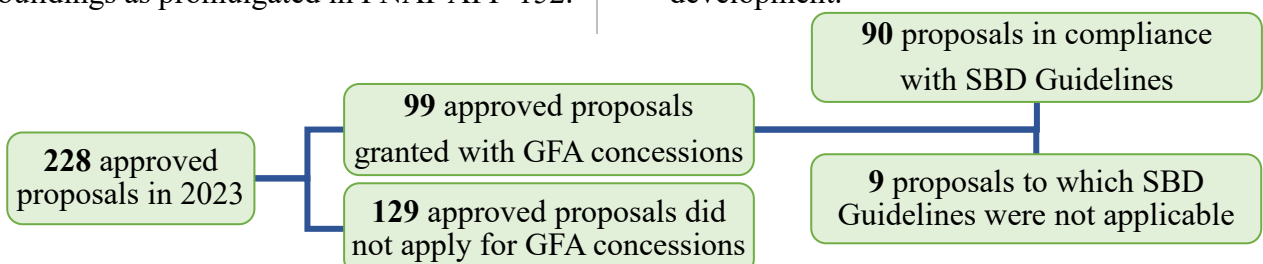
Targets	Performance in 2023
<ul style="list-style-type: none"> <li>● <i>Review of the relevant design requirements pertaining to ventilation within and between buildings</i></li> </ul>	<ul style="list-style-type: none"> <li>◆ The review of the following design requirements to further foster a quality, sustainable and liveable built environment was underway:                             <ul style="list-style-type: none"> <li>• Enhancing the design of re-entrants and light wells to improve ventilation within buildings.</li> <li>• Enhancing the design of communal podium gardens and sky gardens for better ventilation between buildings.</li> <li>• Enhancing ventilation performance standards for lavatories to achieve a healthier indoor environment.</li> </ul> </li> </ul>


## 2.2. Promoting Green and Sustainable Building Developments

Since 2001, BD has been working with the Planning Department and LandsD to offer incentives for developers to adopt green features in new building developments, with the aim of improving the environmental performance of buildings and promoting a quality living environment.

Targets	Performance in 2023
<ul style="list-style-type: none"> <li>● <b>Promulgating sustainable practices</b></li> </ul> <p>To update current/issue new Practice Notes for Authorized Persons, Registered Structural Engineers and Registered Geotechnical Engineers (PNAP) for promulgating building design guidelines to improve the standards of living environment.</p>	<ul style="list-style-type: none"> <li>◆ Revised design standards of aboveground drainage system were promulgated via the revised PNAP APP-164 issued in April and November 2023. In the April 2023 release, the design guidelines for rain water pipes in private buildings were revised to accommodate anticipated extreme rainfall events in the future. In the November 2023 release, it was promulgated that BD would favorably consider applications for modification of the relevant regulation relating to connection of anti-siphonage pipes with reference to some overseas standards.</li> <li>◆ To encourage the provision and proper maintenance of greenery at building exteriors while controlling the impact on building bulk, applications for exemption from plot ratio and site coverage (SC) calculations of projecting greenery at common parts of buildings would be favourably considered by BD, subject to compliance with the requirements set out in the revised PNAP APP-19 issued in September 2023.</li> </ul>

<ul style="list-style-type: none"> <li>● <b>Promoting sustainable building design</b></li> </ul> <p>To implement the GFA concession policy under PNAP APP-151 and the Sustainable Building Design Guidelines (SBD Guidelines) to promote building separation, building setback and SC of greenery of buildings as promulgated in PNAP APP-152.</p>	<ul style="list-style-type: none"> <li>◆ Under the GFA concession policy, compliance with the SBD Guidelines was one of the prerequisites for granting GFA concessions for green/amenity features and non-mandatory/non-essential plant rooms and services in building projects. A maximum concession is capped at 10% of the total GFA of the development.</li> </ul>
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Targets	Performance in 2023
<p>● <i>Participating in Building Environment Assessment</i></p> <p>(a) To support the adoption of BEAM Plus.</p> <p>(b) To review the GFA concession mechanism and consider possible measures to tighten the prerequisites for applying for a GFA concession.</p> <div style="text-align: center; margin: 20px 0;">  </div>	<p>◆ There were 99 building proposals registered for BEAM Plus certification in 2023, amounting to nearly 43% of the proposals approved in the year.</p> <p>◆ Following the Policy Address in January 2017, BD commissioned a consultancy study to review the GFA concession mechanism. While maintaining the 10% GFA concession for new private development projects, the Consultant recommended that new projects would have to achieve a specific rating under the BEAM Plus in order to apply for GFA concession. If a project could only achieve a lower rating, it had to demonstrate compliance with one or more new specific standards that could promote a quality built environment. The new GFA concession mechanism was promulgated via the revised PNAP APP-151 in September 2023 and would come into effect on 30 June 2024.</p>
<p>● <i>Promoting green transportation</i></p> <p><u><i>April 2011 – December 2023</i></u></p> <p><i>702 building plans approved, involving</i></p> <p><i>~80 300 parking spaces equipped with EV charging-enabling facilities</i></p>	<p>◆ To promote the adoption of electric vehicles (EVs), GFA concessions were granted to encourage the provision of EV charging-enabling facilities. From April 2011 to December 2023, 702 building plans were approved with GFA concessions for car parks in new buildings, resulting in approximately 80 300 parking spaces equipped with EV charging-enabling facilities.</p>



Targets	Performance in 2023
<ul style="list-style-type: none"> <li>● <i>Promoting the development of renewable energy</i></li> </ul>	<ul style="list-style-type: none"> <li>◆ To foster the development of renewable energy, facilitation measures for the erection of supporting structures for solar PV systems in open car parks situated on vacant sites, on-grade open areas of existing non-domestic developments, or the main roofs of existing non-domestic buildings, had been introduced since April 2022. Under these measures, 100% GFA concession might be granted to eligible car parking spaces covered by solar PV systems, subject to compliance with relevant requirements and criteria, including policy support from the Environmental and Ecology Bureau. Additionally, fast-track processing of building plans was adopted for proposals relating to the erection of supporting structures for solar PV systems at these car parking spaces.</li> <li>◆ To encourage wider adoption of BIPV systems, a review of the combustibility requirements for BIPV systems installed on building facades was ongoing.</li> </ul>

## 2.3. Facilitating Conservation of Built Heritage

Conservation of built heritage is of paramount importance to showcase the historical and cultural landscape of our city. With an aim to protect and revitalise them, BD actively engages with various government departments and stakeholders in the community to revitalise and conserve heritage buildings.

Target	Performance in 2023
<ul style="list-style-type: none"> <li>● <i>Enhancing heritage conservation</i></li> <li>(a) To support historic buildings conservation and revitalisation without compromising building safety and health requirements.</li> <li>(b) To provide professional technical advisory and pre-submission enquiry services by our Heritage Unit.</li> </ul>	<ul style="list-style-type: none"> <li>◆ The 2021 Edition of the "Practice Guidebook for Adaptive Re-use of and Alteration and Addition Works to Heritage Buildings 2012" (the Practice Guidebook) was issued to provide guidance on reusing historic buildings and project highlights.</li> <li>◆ To keep the Practice Guidebook up to date, the Technical Committee on Building Safety and Health Requirements for Historic Buildings under the BO organised regular meetings to collect users' feedback on the Practice Guidebook for future refinement and to share experience on successful revitalisation projects.</li> </ul>



Luen Wo Market



7 Cox's Road

## 2.4. Reducing Construction and Demolition Wastes

BD remains steadfast in collaborating with stakeholders to reduce construction and demolition wastes by reviewing and promoting environmentally friendly construction methods. We made continuous efforts to improve current building designs and construction practices by encouraging more extensive application of precast concrete construction.

Target	Performance in 2023
<ul style="list-style-type: none"> <li>● <b>Minimising construction and demolition wastes</b></li> </ul> <p>To encourage wider adoption of Modular Integrated Construction (MiC) technology in Hong Kong.</p>  <p>Housing Society Project at Hung Shui Kiu</p>  <p>Transitional Housing Project at Choi Hing Road (for the re-use of modules)</p>	<ul style="list-style-type: none"> <li>◆ The pre-acceptance mechanism for granting in-principle acceptance (IPA) to individual MiC systems or components had been in place since 2017. By 31 December 2023, BD had received 205 IPA applications and granted 93 IPAs, including 56 steel and 37 concrete systems, involving 55 MiC manufacturers which had been included in BD’s List of Accepted MiC Systems.</li> <li>◆ With the granting of SC concession, and the increase of GFA concession to 10% of the MiC floor area in 2022, there was an increase in the adoption of MiC for private development projects. By 31 December 2023, 19 private MiC development projects had been completed.</li> <li>◆ The advantages of MiC in terms of sustainability and reduction of construction waste were demonstrated in two new MiC projects that reused some modules dismantled from two existing MiC projects. The dismantling of modules of the two existing MiC projects was completed in April and November 2023. The assembly of existing modules for one of the new MiC projects was completed in July 2023 and that for the other was in progress.</li> </ul>

## 2.5. Proper Use and Timely Maintenance of Existing Buildings

Ensuring building safety and health is an important part of our services. We continue to promote the importance of environmental hygiene, reduce the risks brought about by unauthorised building works (UBWs), promote fire safety, proper maintenance of old buildings, drainage and slopes, as well as tackling problems relating to building neglect and dilapidation.

Targets	Performance in 2023
<ul style="list-style-type: none"> <li>● <b>Tackling UBWs and rectifying building dilapidation</b></li> </ul> <p>To continue the clearance of UBWs, including unauthorised signboards, structures on rooftops, podiums, lanes and yards and those in New Territories Exempted Houses (NTEH), in target buildings by taking enforcement actions through large scale operations (LSO); and to rectify identified building dilapidations, to improve building safety.</p>	<ul style="list-style-type: none"> <li>◆ No. of removal orders issued in 2023: <b>9 109</b></li> <li>◆ No. of UBWs removed and irregularities rectified: <b>29 585</b></li> <li>◆ No. of repair/investigation orders issued: <b>848</b></li> <li>◆ No. of buildings/premises repaired: <b>2 501</b></li> </ul>
<h3>UBWs Clearance Operations in 2023</h3> <div style="border: 1px dashed #92d050; border-radius: 15px; padding: 10px; margin-bottom: 10px;"> <p><b>Unauthorised Signboards</b></p> <ul style="list-style-type: none"> <li>• <b>2 113</b> unauthorised signboards removed/validated</li> <li>• <b>1 862</b> abandoned/dangerous signboards removed/repaired</li> <li>• <b>95</b> signboards validated under the Signboard Validation Scheme</li> </ul> </div> <div style="border: 1px dashed #92d050; border-radius: 15px; padding: 10px; margin-bottom: 10px;"> <p><b>Unauthorised Structures on Rooftops</b></p> <ul style="list-style-type: none"> <li>• <b>95</b> target domestic/composite buildings selected</li> <li>• <b>2 705</b> removal orders and <b>6</b> repair/investigation orders issued</li> <li>• <b>625</b> removal orders complied with</li> </ul> </div> <div style="border: 1px dashed #92d050; border-radius: 15px; padding: 10px;"> <p><b>UBWs in NTEH</b></p> <ul style="list-style-type: none"> <li>• <b>1 633</b> removal orders and <b>17</b> repair/investigation orders issued</li> <li>• <b>1 606</b> UBWs removed/irregularities rectified</li> <li>• <b>4</b> buildings/premises repaired</li> </ul> </div>	
<ul style="list-style-type: none"> <li>● <b>Inspection of subdivided flats (SDF)</b></li> </ul> <p>To take enforcement actions against building irregularities associated with SDF in domestic, composite and industrial buildings.</p>	<ul style="list-style-type: none"> <li>◆ <b>100</b> target buildings selected under LSO</li> <li>◆ <b>1 719</b> SDF inspected in response to public reports and through LSO</li> <li>◆ <b>323</b> SDF rectified of irregularities</li> </ul>

Targets	Performance in 2023
<ul style="list-style-type: none"> <li>● <i>Tackling water seepage problems in buildings</i></li> </ul> <p>To continue the operation of the Joint Office with the FEHD in handling public reports on water seepage.</p>	<ul style="list-style-type: none"> <li>◆ The application of new testing methods including infrared thermography and microwave tomography in carrying out professional investigations for water seepage cases was extended to <b>14</b> pilot districts.</li> <li>◆ With the use of new testing methods in pilot districts, the success rate in identifying water source of cases was about 64%, which was higher than the success rate of around 40% for cases using the conventional methods.</li> <li>◆ Since mid-September 2023, the Joint Office had implemented a new set of investigation procedures on a trial basis in <b>four</b> districts. After the completion of Stage I investigation, Stage II initial investigation and Stage III professional investigation originally to be conducted sequentially would be carried out in parallel to shorten the time for investigation.</li> </ul>
<ul style="list-style-type: none"> <li>● <i>Mandatory Building and Window Inspection Schemes</i></li> </ul> <p>To continue the implementation of the Mandatory Building Inspection Scheme (MBIS) and Mandatory Window Inspection Scheme (MWIS) and enhance support to the owners and stakeholders.</p>	<ul style="list-style-type: none"> <li>◆ <b>542</b> buildings were selected for both MBIS and MWIS, while <b>58</b> buildings were selected for MBIS only and <b>58</b> buildings were selected for MWIS only.</li> <li>◆ <b>26</b> briefing sessions were conducted for building owners, owners' corporations and the industry.</li> <li>◆ <b>12</b> briefing sessions were conducted for the "Central Platform on Building Management" organised by the Home Affairs Department.</li> </ul>
<ul style="list-style-type: none"> <li>● <i>Building fire safety</i></li> </ul> <p>To improve the existing fire safety measures in prescribed commercial premises, as well as pre-1987 commercial buildings, composite buildings and industrial buildings.</p>	<ul style="list-style-type: none"> <li>◆ BD carried out inspections and took necessary enforcement actions in accordance with the Fire Safety (Commercial Premises) Ordinance, Fire Safety (Buildings) Ordinance and Fire Safety (Industrial Buildings) Ordinance.</li> <li>◆ In 2023, BD inspected <b>532</b> premises and buildings, and issued <b>7 019</b> fire safety directions or fire safety improvement directions.</li> </ul>



Targets	Performance in 2023
<ul style="list-style-type: none"> <li>● <i>Special scheme to inspect external drainage system (the Special Inspection Scheme)</i></li> </ul> <p>To inspect the external drainage systems of all private residential and composite buildings exceeding three storeys in height (i.e. some 18 000 buildings) and to take enforcement actions to require repairs/rectification of the defective drainage systems in view of the heightened concern about the condition of drainage pipes during the COVID-19 epidemic.</p>	<ul style="list-style-type: none"> <li>◆ The Special Inspection Scheme involving inspection and order serving was completed in 2022.</li> <li>◆ BD issued <b>18 732</b> statutory orders against defective drainage systems in approximately <b>5 300</b> buildings in 2021 and 2022. By the end of 2023, <b>9 689</b> orders were complied with.</li> <li>◆ BD would continue to follow up on the outstanding orders to protect public health and safety.</li> </ul>
<ul style="list-style-type: none"> <li>● <i>Stepping up clearance of outstanding drainage repair orders covering misconnection of drain pipes causing hygiene and environmental pollution problems</i></li> </ul>	<ul style="list-style-type: none"> <li>◆ Dedicated teams were set up for the operation.</li> <li>◆ <b>129</b> orders were complied with in 2023.</li> </ul>





## PUBLIC EDUCATION AND HUMAN CAPITAL STRATEGY



It is our belief that the success of moving towards sustainability depends on the firm commitment and participation across the community.

### 3.1. Educating and Engaging the Public on Sustainability

Engaging stakeholders and the public is an indispensable part of enhancing awareness of building safety and fostering a building care culture. To this end, we are committed to raising public awareness by launching different community educational activities.

Targets	Performance in 2023
<p>(a) To promote and publicise initiatives of the department to the public and educate the general public and the stakeholders in the building/construction fields on the importance of building safety and timely maintenance of buildings.</p>	<p><b>Building Safety Week</b></p> <p>◆ The Building Safety Week 2023 was successfully held from 21 to 27 October. It included a carnival, a series of public seminars and a symposium to help the public better understand building safety messages and promote a building care culture. The Building Safety Symposium, themed “Expanding Opportunities for a Safer and More Sustainable Built Environment”, provided an excellent opportunity for the industry to exchange ideas and views on building safety issues.</p> <div style="text-align: center;">  <p>Building Safety Symposium</p> </div> <div style="text-align: center;">  <p>Building Safety Carnival</p> </div> <p>No. of participants for:</p> <ul style="list-style-type: none"> <li>• Building Safety Symposium: <b>391</b></li> <li>• Open day cum Public Seminars: <b>672</b></li> <li>• Building Safety Carnival: <b>6 712</b></li> </ul>

Targets	Performance in 2023
	<p><b>Building Safety Advanced Certificate Course</b></p> <ul style="list-style-type: none"> <li>◆ The two-day Building Safety Advanced Certificate Course which was tailor-made for those who had completed the Building Safety Certificate Course, was held on 9 and 16 December. Participants had an in-depth exploration of building safety on the related topics to reinforce their building care awareness.</li> </ul> <p>No. of attendees: <b>86</b> Overall satisfaction rate: <b>98%</b></p>
	<p><b>Building Safety Talks/Seminars</b></p> <ul style="list-style-type: none"> <li>◆ A total of <b>53</b> sessions of Building Safety Talks/Seminars were organised throughout the year for the general public, educational sector, building owners and the industry.</li> </ul>
	<p><b>Building Safety Pioneer Programme and Comic Drawing Competition</b></p> <ul style="list-style-type: none"> <li>◆ Promoted building safety to students from <b>22</b> secondary schools through online activities.</li> <li>◆ Students were invited to participate in the comic drawing competition by creating a four-panel comic that presented and incorporated what they had learnt about the subject of healthy drainage, UBWs, MBIS and MWIS.</li> </ul>
	<p><b>Online Video</b></p> <ul style="list-style-type: none"> <li>◆ A video on how to comply with drainage related statutory orders was released in October 2023 to educate the general public about the procedures for complying with orders and the common defects found in the drainage systems.</li> <li>◆ A video targeting building owners and tenants was launched in November 2023 to raise public awareness about the importance of regular inspection and maintenance of private buildings.</li> </ul>

Targets	Performance in 2023
 	<p><b>Banners and posters</b></p> <ul style="list-style-type: none"> <li>◆ To enhance public awareness of the importance of regular inspection and maintenance of private buildings, we displayed banners with the theme on various digital and outdoor advertising platforms.</li> <li>◆ We continued to promote BD's enforcement actions against UBWs in NTEH through minibus banners.</li> </ul> <hr/> <p><b>Periodic Publications</b></p> <ul style="list-style-type: none"> <li>◆ Building Safety Quarterly Newsletters covering topics on building safety, with reminders for property management companies were published.</li> <li>◆ Monthly Digest provided statistical data on BD's building control output under the BO.</li> </ul>
<p>(b) To promote and publicise building safety information to the public and younger people through electronic means to reduce the printing of pamphlets and leaflets.</p>	<p><b>Broadcasts</b></p> <ul style="list-style-type: none"> <li>◆ A new TV Announcement in the Public Interest (API) was launched in November to enhance public awareness of the importance of regular inspection and maintenance of private buildings. It was played at Mass Transit Railway stations, train compartments, and on online media platforms. A corresponding radio API was also broadcast on local radio channels.</li> </ul> <hr/> <p><b>E-Learning Centre</b></p> <ul style="list-style-type: none"> <li>◆ Our digital learning platform, the E-Learning Centre, continued to disseminate useful information to enhance building safety awareness among property owners, owners' corporations, representatives of property management companies and the public. In 2023, a total of <b>52</b> videos were uploaded to the E-Learning Centre.</li> </ul>

Targets	Performance in 2023
	<p><b>Social Media</b></p> <ul style="list-style-type: none"> <li>◆ BD maintained a Facebook page, an Instagram account and a YouTube channel, in order to share the latest event updates and safety tips in a more efficient way.</li> <li>◆ Annual Statistics:           <ul style="list-style-type: none"> <li>• No. of Facebook followers: <b>25 290</b></li> <li>• No. of Instagram followers: <b>5 141</b></li> <li>• No. of YouTube subscribers: <b>2 633</b></li> <li>• No. of posts on Facebook: <b>168</b></li> <li>• No. of posts on Instagram: <b>169</b></li> <li>• No. of videos on YouTube: <b>28</b></li> <li>• No. of likes on Facebook: <b>12 338</b></li> <li>• No. of likes on Instagram: <b>15 790</b></li> <li>• No. of likes on YouTube: <b>1 641</b></li> <li>• No. of views on YouTube: <b>735 704</b></li> </ul> </li> </ul>

## 3.2. Training our Staff

Our training and development programmes place great emphasis on equipping our staff to understand and actively play their roles in promoting and facilitating sustainable building developments.

Target	Performance in 2023
To provide trainings related to green building and sustainability to staff.	<ul style="list-style-type: none"> <li>◆ <b>73</b> seminars and conferences and <b>22</b> site visits on building sustainability were arranged for <b>1 580</b> staff.</li> <li>◆ <b>42</b> staff attended BEAM Pro Training to support green building developments.</li> <li>◆ <b>22</b> BIM lessons were arranged for <b>411</b> staff to get prepared for wider use of BIM in building industry.</li> </ul>

## GREEN OFFICE

It is our continuous target to ensure the effective implementation of in-house green measures in all our offices and to increase the awareness of our staff on green office management. We take a proactive approach to resource conservation and energy saving to achieve sustainable development. To demonstrate our unwavering dedication to environmental management, we actively participated in the Hong Kong Awards for Environmental Excellence (HKAEE) (Public and Community Services Sector) and became one of the HKAEE Alumni in 2023. Besides, the Building Information Centre at our Headquarters was awarded a Platinum rating under BEAM Plus Interiors.

### 4.1. Improving Air Quality

In November 2006, the Government signed the Clean Air Charter launched by the Hong Kong General Chamber of Commerce and the Hong Kong Business Coalition on the Environment, to join forces with the business sector and the community to foster the improvement of air quality in Hong Kong.

Commitments	Performance in 2023
<ul style="list-style-type: none"> <li>● <i>To actively fulfil our commitment under the “Clean Air Charter”</i></li> </ul>	<ul style="list-style-type: none"> <li>◆ BD had joined the Indoor Air Quality (IAQ) Certification Scheme since 2011.</li> <li>◆ Our Headquarters at West Kowloon Government Offices (WKGO) was certified with “Excellent” IAQ Class.</li> <li>◆ Our outstation offices in Mong Kok, Taikoo Shing and Kwun Tong were certified with “Good” IAQ Class.</li> </ul>
<ul style="list-style-type: none"> <li>● <i>To adopt energy-efficient measures in our operations</i></li> </ul>	<p><b>Electricity Consumption and Greenhouse Gas (GHG) Emissions</b></p> <ul style="list-style-type: none"> <li>◆ The source of energy and fuel consumption related to our operation included the use of electricity and the vehicle fleet, which generated direct and indirect GHG emissions. The total amount of GHG emissions generated was approximately 2 121 tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e), at an intensity of 0.94 tCO<sub>2</sub>e per staff.</li> <li>◆ The electricity consumption of WKGO and BD outstation offices including storerooms were 3 548 229 kWh and 1 189 994 kWh respectively, or 2 166 kWh per staff (excluding electricity consumption in store rooms).</li> </ul>



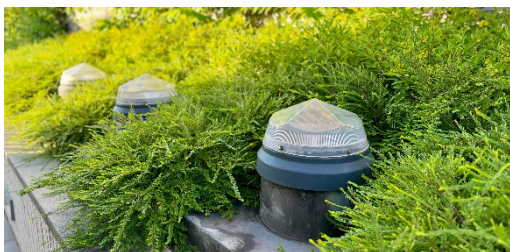
Commitments	Performance in 2023
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- ◆ **Use of Renewable Energy**  
A solar PV system was installed on the roof of our Headquarters to generate electricity for our on-site self-consumption. This initiative enabled us to offset a portion of the building's energy consumption with clean and renewable solar power.

### Reducing Carbon Emissions

- ◆ We had been adopting a multi-faceted approach to minimise fuel consumption by encouraging online communication, better planning business trips, and replacing traditional vehicles with EVs. Our fleet included 40 vehicles, 10 of which were EVs, and 1 was hybrid electric car. Additionally, 13 EV chargers were installed at the car park of our Headquarters. According to the Smart Power Quality Monitoring System, the electricity consumed by the EV chargers in 2023 was 16 851 kWh, which was 27.4% higher than the consumption in 2022. This growth was due to an increase in the number of EVs used in 2023.



- ◆ Light pipes of the natural light harvesting technologies were installed at our Headquarters to capture sunlight from the rooftop and distribute it into the interior spaces. This design reduced the need for artificial lighting during daylight hours and further enhanced the building's energy efficiency, which in turn reduced the carbon emissions associated with energy use.


- ◆ BD would conduct carbon audit following the requirements in the “Guide to Environmental Reporting for the Government Bureaux and Departments” issued by the Environmental Protection Department and would upload the Carbon Performance Disclosure to BD’s website.

### Green Housekeeping

- ◆ Appointed a Green Manager to implement a programme of green housekeeping and introduce measures to increase staff consciousness and engagement in green practices and waste avoidance, fostering a culture of sustainability throughout our workplace.







Commitments	Performance in 2023
	<p><b>Increasing Energy Efficiency</b></p> <ul style="list-style-type: none"> <li>◆ Maintained air-conditioning at 25.5°C</li> <li>◆ Adopted multi-zone lighting control</li> <li>◆ Chose electrical devices and equipment with higher rating energy saving labels</li> <li>◆ Maintained installation of motion sensors if applicable</li> </ul> <p><b>Minimising Energy Wastage and Loss</b></p> <ul style="list-style-type: none"> <li>◆ Set time control and stand-by-mode for appliances</li> <li>◆ Appointed 61 Energy Wardens to arrange for the last-man-out to switch off lighting and devices at the end of the day and conduct walk-through quarterly</li> </ul> <p><b>Building Awareness</b></p> <ul style="list-style-type: none"> <li>◆ Displayed “Energy Saving” stickers to remind staff to turn off unnecessary appliances when not in use</li> <li>◆ Encouraged using staircases instead of elevators for inter-floor traffic within offices</li> </ul>

## 4.2. Moving towards a Paperless Office

We are taking advantage of information technology to move towards a paperless office by introducing computerised management systems and encouraging communication within the workplace and with our stakeholders and the public via electronic means.

Targets	Performance in 2023
<p><b><u>On public front</u></b></p> <ul style="list-style-type: none"> <li>● <i>To disseminate information to the public via the BD’s website and other electronic means</i></li> </ul>	<ul style="list-style-type: none"> <li>◆ The BD’s website continued to provide up-to-date information on the functions and services of the Department.</li> <li>◆ We launched an e-search for the public to identify the issuance and compliance status of statutory orders. We also set up a Corner for AP, RSE, RGE, RI and RC on BD’s website to facilitate them in keeping abreast of the updated requirements.</li> <li>◆ The thematic website “Care for Your Building” was revamped to better promote the importance of building safety and timely maintenance to the public.</li> </ul>

Targets	Performance in 2023
<p>Know more about building/window inspection</p> 	<ul style="list-style-type: none"> <li>◆ Legal/Validated Signboards Database was established in Government’s GeoInfo Map for identification of legal or validated signboards. BD continued to update the information of such signboards in the database regularly.</li> <li>◆ A Chatbot - “Ah Build” continued to answer general enquiries from the public about the MBIS and MWIS.</li> <li>◆ We continued to send notifications to all registered building professionals and contractors as well as property management companies via email and/or Short Message Service to reduce the use of paper and enhance the effectiveness.</li> </ul>
<ul style="list-style-type: none"> <li>● <i>To develop and launch mobile applications for the general public to have a quick and easy communication platform to access information</i></li> </ul> 	<ul style="list-style-type: none"> <li>◆ With the use of two mobile applications, “Quick Guide for Minor Works” and “Quick Guide for MBIS/MWIS”, which provided a quick and easy means for the public to view useful information, users could carry out minor works under MWCS, inspection and repair works under MBIS and MWIS easily and effectively.</li> <li>◆ The mobile application “WIN SAFE”, facilitated building owners in appointing suitable Qualified Persons for early compliance with the MWIS notices to ensure building safety.</li> </ul>

Targets	Performance in 2023												
<ul style="list-style-type: none"> <li>● <i>To simplify the viewing and copying of building records through the implementation of Buildings Records Access and Viewing On-line (BRAVO) system over the Internet</i></li> </ul>	<ul style="list-style-type: none"> <li>◆ In 2023, we handled 110 937 applications for viewing electronic records (included minor works records), out of which 107 331 applications were processed by the BRAVO system over the Internet.</li> <li>◆ Annual Statistics:               <ul style="list-style-type: none"> <li>• No. of BRAVO Individual Accounts: <b>14 035</b></li> <li>• No. of BRAVO Company Accounts: <b>782</b></li> </ul> </li> </ul>												
<div> <p>The Number of New BRAVO Individual Accounts in the Past Five Years</p> <table border="1"> <caption>Data for The Number of New BRAVO Individual Accounts in the Past Five Years</caption> <thead> <tr> <th>Year</th> <th>No. of New BRAVO Individual Accounts</th> </tr> </thead> <tbody> <tr> <td>2019</td> <td>6710</td> </tr> <tr> <td>2020</td> <td>9340</td> </tr> <tr> <td>2021</td> <td>10513</td> </tr> <tr> <td>2022</td> <td>13122</td> </tr> <tr> <td>2023</td> <td>14035</td> </tr> </tbody> </table> </div>		Year	No. of New BRAVO Individual Accounts	2019	6710	2020	9340	2021	10513	2022	13122	2023	14035
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2019	6710												
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<ul style="list-style-type: none"> <li>● <i>To issue certificates of registration under the BO in electronic form (e-Certificate)</i></li> </ul>	<ul style="list-style-type: none"> <li>◆ BD issued e-Certificates of registration under the BO to the applicants via email to replace paper certificates.</li> <li>◆ e-Certificates reduced the use of paper and ink and reduced the risk of damaging or misplacing the paper certificate by the applicant (which would be troublesome as the applicant would need to re-apply for a certified true copy of the paper certificate).</li> <li>◆ In 2023, <b>99.6%</b> of the total number of building professionals and <b>73.9%</b> of the total number of contractors registered under the BO had been issued with e-Certificates.</li> </ul>												
<ul style="list-style-type: none"> <li>● <i>To accept submission of documents in electronic format</i></li> </ul>	<ul style="list-style-type: none"> <li>◆ In 2023, around <b>17 588</b> forms were processed through the Electronic Form Submission System.</li> <li>◆ To promote the wider and fuller adoption of BIM for statutory submissions in private building projects, a roadmap for the adoption of BIM for building plan preparation and submission was promulgated by the Development Bureau in December 2023. A consultancy study to support the formulation of the relevant technical framework would be commissioned by BD in 2024.</li> </ul>												

Targets	Performance in 2023
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- ◆ The “Guidelines for using BIM in Statutory Plan Submissions (other than General Building Plan) 2023” were jointly developed with the Construction Industry Council and published in May 2023. Besides, BIM plug-in tools for two BIM native softwares were being jointly developed with LandsD to facilitate both departments and building professionals in checking area calculations on building plan submissions under the BO and lease conditions. The tool for checking area calculations under the BO was planned to be launched in the first quarter of 2024. In addition, other checking tools covering sanitary fitments, fire safety, building separation requirements and structural plan compatibility were also being developed.
- ◆ An ESH was being developed for receiving and processing electronic plans and documents, as well as other applications under the BO. Implementation of the ESH would bring many environmental benefits, including saving paper and reducing the need for printing and transporting paper documents. The ESH was being implemented in three stages. Stage 1 of the ESH was launched on 30 June 2022 to accept structural plan submissions for building works above ground that did not require cross-departmental referral (excluding alteration and addition works). Stage 2 of the ESH was launched on 31 March 2023 to accept more types of plan submissions, covering the following types of works (excluding alteration and addition works):
  - (1) hoarding, covered walkway and gantry;
  - (2) demolition works;
  - (3) drainage works;
  - (4) excavation and lateral support works;
  - (5) ground investigation works;
  - (6) foundation works;
  - (7) site formation works; and
  - (8) all structural works.

Targets	Performance in 2023
	<ul style="list-style-type: none"> <li>◆ BD would advance Stage 3 of ESH from Q2 2025 to Q2 2024 to accept all types of plans including general building plans and plans for alteration and addition works, as well as related applications. Upon the launch of Stage 3 of ESH, the submitted information could be shared electronically with 35 government departments and organisations including BD via ESH for parallel processing.</li> </ul>
<p><u><i>In our work place</i></u></p> <ul style="list-style-type: none"> <li>● <i>To disseminate information electronically and to introduce more green measures</i></li> </ul>	<ul style="list-style-type: none"> <li>◆ We utilised the eDKMS, a central repository for document and knowledge management facilitating information sharing and collaboration within and across different divisions or sections in BD. In addition, the development of the Electronic Recordkeeping System was underway to further reduce paper consumption.</li> <li>◆ Mobile devices with the add-on feature “Pulse Secure” app were made available for staff to access internal manuals and electronic forms and process documents for site inspection and meetings when necessary.</li> </ul>
<ul style="list-style-type: none"> <li>● <i>Green Management of Data Centre and Green IT Measures</i></li> </ul>	<ul style="list-style-type: none"> <li>◆ Both cloud computing and server virtualisation technology were used to optimise the number of physical servers required thereby cutting down electricity power consumption.</li> <li>◆ All new printers were equipped with EcoPrint or Energy Saving Mode with Duplex Printing feature.</li> <li>◆ All servers, printers and desktop personal computers were Energy Star and Restriction of Hazardous Substances Compliant.</li> <li>◆ Network backup had been used to gradually replace manual backup thereby reducing transportation and storage of tapes.</li> </ul>

## 4.3. Saving Resources

The best approach to manage waste is “reduction” at the source. We adhere to the principles of “Reduction, Reuse and Recycling” in the Department to minimise waste produced from our office operations. BD Administration Circular No. 1/2022 on “Green Practices and Waste Avoidance” has reminded all staff to set a green example by adopting green practices and waste avoidance measures and reducing the consumption of energy and paper.

Targets	Performance in 2023
<b>Reduction</b>	<ul style="list-style-type: none"> <li>◆ Our total paper consumption in 2023 was 25 661 reams, which was 8.98% lower than that in 2022.</li> <li>◆ Recycled paper in lieu of virgin paper had continuously been used in the Department. In 2023, 38.76% of the total amount of paper consumed was recycled paper. The proportion had increased by 5.83% compared to the year 2022. A total of 87 200 envelopes were consumed in 2023, which was 12.8% fewer than that consumed in 2022.</li> <li>◆ We would continue our efforts to minimise the use of paper by:               <ul style="list-style-type: none"> <li>• Using emails instead of paper memos and faxes for internal and external communications.</li> <li>• Minimising the production of hardcopies of documents.</li> <li>• Sending e-cards.</li> </ul> </li> </ul> <hr/> <ul style="list-style-type: none"> <li>◆ We continued to adopt “No bottled water” policy at our Headquarters to avoid use of plastic bottles.</li> </ul>
<b>Reuse</b>	<ul style="list-style-type: none"> <li>◆ We promoted the reuse of resources by:               <ul style="list-style-type: none"> <li>• Reusing old furniture during office refurbishment or renovation.</li> <li>• Encouraging our staff to use the blank side of used paper for drafting, filing and printing.</li> <li>• Reusing envelopes for internal circulation.</li> <li>• Using ball pens with refills.</li> <li>• Placing used paper with a blank side near high paper usage equipment (e.g. photocopier) to facilitate reuse.</li> <li>• Encouraging staff to use their own cups instead of paper cups.</li> </ul> </li> </ul>
<b>Recycling</b>	<ul style="list-style-type: none"> <li>◆ We collected recyclable waste materials by:               <ul style="list-style-type: none"> <li>• Placing collection bags near high paper usage equipment for recycling of waste paper.</li> <li>• Providing waste sorting and recycling bins at breakout spaces and areas accessible to the public for the collection of used plastics, metals, glass and rechargeable batteries.</li> </ul> </li> <li>◆ With the support of our staff, in 2023, we collected a total of 44 866 kg of waste paper for recycling which had decreased by 2.23% compared to the figure in 2022.</li> </ul>



## 4.4. Procuring Green Products

We purchased green products to demonstrate our responsibility to save the Earth and support the recycling industry by sourcing environmentally friendly products for office use, making reference to the green specifications published by the Environmental Protection Department. Here are some examples of the green products we procured.



Pencils made of recycled materials



T5 Fluorescent tube



Recycled paper



Rechargeable batteries

## 4.5. Performance Summary

### Energy Consumption

	Unit	2023
Gasoline	GJ <sup>1</sup> (Litre)	1 896 (57 455)
Electricity	GJ <sup>1</sup> (Million kWh)	17 058 (4.74)
<b>Total energy consumption</b>	<b>GJ</b>	<b>18 954</b>

### GHG Emissions<sup>2</sup>

	Unit	2023
Gasoline combustion (Scope 1) <sup>3</sup>	tCO <sub>2</sub> e	155.61
Electricity purchased (Scope 2) <sup>4</sup>	tCO <sub>2</sub> e	2 030.06
Others (Scope 3) <sup>5</sup>	tCO <sub>2</sub> e	-64.76
<b>Total GHG consumption</b>	<b>tCO<sub>2</sub>e</b>	<b>2 120.91</b>
GHG intensity per staff	tCO <sub>2</sub> e/staff	0.94

### Material Consumption

	Unit	2023
<b>Total paper consumption</b>	<b>kg</b>	<b>62 448.63</b>
A4 paper	kg	57 588.40
A3 paper	kg	4 860.23
Paper consumed per staff	kg	27.73

### Waste Management - Recyclable Waste Collected

	Unit	2023
Waste paper	kg	44 866

<sup>1</sup> Conversion factors used to standardise the units to gigajoules (GJ): gasoline (0.033 GJ/L), electricity (0.0036 GJ/kWh).

<sup>2</sup> GHG emissions were calculated based on the Guidelines to Account for and Report on Greenhouse Gas Emissions and Removals for Buildings (Commercial, Residential or Institutional Purposes) in Hong Kong issued by the Environmental Protection Department and Electrical and Mechanical Services Department in February 2010.

<sup>3</sup> Generated from mobile combustion of petrol, i.e. vehicle consumption.

<sup>4</sup> The GHG emission was calculated based on a territory-wide default value of 0.7kg/kWh.

<sup>5</sup> Other indirect emissions.

## Feedback

Thank you for reading the Buildings Department Environmental Report 2023. Your views and suggestions are most welcome. It will help sustain our policies and support our continuous improvement. Please take a few minutes to give us your views by completing the following feedback form.

### 1. Which of the following best describes you?

- Government Departments or Agencies       Building Professionals       NGO  
 Legislators and Local District Councillors       General Public       Media  
 Staff of Buildings Department       Academic Sector       Student

### 2. Please rate our environmental report and performance.

Buildings Department Environmental Report 2023

- Fair       Good       Very Good       Excellent

Buildings Department Environmental Performance

- Fair       Good       Very Good       Excellent

### 3. Which aspect of the report did you find most useful?

- Economic     Environmental     Social     Governance     Others (please specify:\_\_\_\_)

### 4. Which aspect of the Buildings Department would you like to have more information?

- Economic     Environmental     Social     Governance     Others (please specify:\_\_\_\_)

Please return the completed feedback form to the Buildings Department by:

Email: [enquiry@bd.gov.hk](mailto:enquiry@bd.gov.hk)

Hotline: 2626 1616 (Handled by “1823”)

Fax: 2537 4992

Post: Buildings Department Headquarters, North Tower, West Kowloon  
Government Offices, 11 Hoi Ting Road, Yau Ma Tei, Kowloon

THANK YOU FOR YOUR VALUABLE FEEDBACK!