# **PAQS Sustainability Committee – Information on Green Buildings**

## Reported by the Hong Kong Institute of Surveyors (HKIS)

#### Dated 28 August 2022

# 1. Green buildings assessment system adopted

The predominant green building assessment systems in Hong Kong are as follows:

- BEAM Plus New Buildings<sup>1</sup>
- BEAM Plus Existing Buildings<sup>2</sup>
- BEAM Plus Interiors<sup>3</sup>
- BEAM Plus Neighbourhood<sup>4</sup>
- BEAM Plus Data Centres<sup>5</sup>
- BEAM Plus Existing Schools<sup>6</sup>

# 2. Statutory requirements on the following elements of green buildings

#### For building envelope:

- Building (Energy Efficiency) Regulations and Code of Practice for Overall Thermal Transfer Value in Buildings 1995<sup>7</sup> for office and commercial buildings
- Guidelines on Design and Construction Requirements for Energy Efficiency of Residential Buildings 2014<sup>8</sup>
- Practice Note for Authorized Persons, Registered Structural Engineers and Registered Geotechnical Engineers (APP-151) - Building Design to Foster a Quality and Sustainable Built Environment<sup>9</sup>
- Practice Note for Authorized Persons, Registered Structural Engineers and Registered Geotechnical Engineers (APP-152) – Sustainable Building Design Guidelines<sup>10</sup>

#### For building energy:

- Buildings Energy Efficiency Ordinance
- Code of Practice for Energy Efficiency of Building Services Installation 2015<sup>11</sup>
- Code of Practice for Building Energy Audit 2015<sup>12</sup>

### For water conservation:

• "Let's Save 10L Water Campaign" (non-statutory)

<sup>&</sup>lt;sup>1</sup> https://www.hkgbc.org.hk/eng/NB Intro.aspx

<sup>&</sup>lt;sup>2</sup> https://www.hkgbc.org.hk/eng/EB Intro.aspx

<sup>&</sup>lt;sup>3</sup> https://www.hkgbc.org.hk/eng/BI\_Intro.aspx

<sup>&</sup>lt;sup>4</sup> https://www.hkgbc.org.hk/eng/beam-plus/beam-plus-neighbourhood/index.jsp

<sup>&</sup>lt;sup>5</sup> https://www.hkgbc.org.hk/eng/beam-plus/beam-plus-data-centres/index.jsp

<sup>&</sup>lt;sup>6</sup> https://www.hkgbc.org.hk/eng/beam-plus/beam-plus-existing-schools/index.jsp

<sup>&</sup>lt;sup>7</sup> https://www.bd.gov.hk/english/documents/code/e\_ottv.htm

<sup>8</sup> https://www.bd.gov.hk/english/documents/code/e\_ottv.htm

<sup>&</sup>lt;sup>9</sup> https://www.bd.gov.hk/doc/en/resources/codes-and-references/practice-notes-and-circular-letters/pnap/APP/APP151.pdf

 $<sup>^{10}\,</sup>https://www.bd.gov.hk/doc/en/resources/codes-and-references/practice-notes-and-circular-letters/pnap/APP/APP152.pdf$ 

<sup>11</sup> https://www.emsd.gov.hk/beeo/en/pee/BEC 2015.pdf

<sup>12</sup> https://www.emsd.gov.hk/beeo/en/pee/EAC\_2015.pdf

<sup>&</sup>lt;sup>13</sup> https://waterconservation.hk/en/main.html

#### For waste reduction:

- Product Eco-responsibility (Amendment) Ordinance 2014 <sup>14</sup> and Product Eco-responsibility (Plastic Shopping Bags) Regulations <sup>15</sup> Promotion of Recycling and Proper Disposal (Electrical Equipment and Electronic Equipment) (Amendment) Ordinance 2016 <sup>16</sup>
- Promotion of Recycling and Proper Disposal (Product Container) (Amendment) Bill 2015<sup>17</sup>
- Municipal Solid Waste Charging Scheme (expected to be implemented in 2023 the earliest)

#### For indoor air quality:

- Air Pollution Control Ordinance
- Guidance Notes for the Management of Indoor Air Quality in Offices and Public Places 2003<sup>18</sup> (non-statutory)

# 3. Government incentives for providing new green buildings and existing green buildings

For new buildings, the HKSAR Government provides a gross floor area (GFA) concession scheme for private developers to invest in innovative and green new buildings. Green features, which adopt a holistic life cycle approach, maximise renewable resources and green materials, reduce construction waste and minimise the energy consumption, are exempted from gross floor area calculations. The concession is currently capped at 10% of the total gross floor area of the development<sup>19</sup>. As noted in paragraph 5 of APP151, a new project has to comply with certain criteria prior to its entitlement to this 10% concession<sup>20</sup>.

With effect from 1 January 2018, new or existing buildings that have achieved Final Bronze rating or above under BEAM Plus are eligible to register under the Energy Efficiency Registration Scheme for Buildings. Capital expenditure incurred in respect of renewable energy and efficient building installations is allowed for tax deduction to be claimed in full in one year.

The two local power supply companies, CLP Power and HK Electric, have set up the "CLP Eco Building Fund" and "HK Electric Smart Power Fund" to subsidise residential buildings and ancillary facilities to carry out energy efficiency enhancement works.

#### 4. Quantity Surveyors' involvement in green buildings

- Cost and benefit analysis of green features.
- Life cycle costing analysis.

#### 5. Useful links relating to green buildings

Useful links are indicated in the relevant footnotes.

# 6. Updated developments of green buildings

• The HKSAR Government completed the review of the gross floor area (GFA) concession scheme for green buildings and is working closely with the stakeholders to formulate the

<sup>&</sup>lt;sup>14</sup> https://www.epd.gov.hk/epd/sites/default/files/epd/PER\_A\_O2014\_e2.pdf

 $<sup>^{\</sup>rm 15}$  https://www.epd.gov.hk/epd/sites/default/files/epd/epd/CAP\_603A\_e\_b5.pdf

<sup>&</sup>lt;sup>16</sup> http://www.legco.gov.hk/yr15-16/english/ord/ord003-2016-e.pdf

<sup>&</sup>lt;sup>17</sup> http://www.legco.gov.hk/yr14-15/english/bills/b201507033.pdf

<sup>18</sup> http://www.iaq.gov.hk/media/8745/gn\_eng.pdf

<sup>&</sup>lt;sup>19</sup> https://www.bd.gov.hk/doc/en/resources/codes-and-references/practice-notes-and-circular-letters/pnap/APP/APP151.pdf

<sup>&</sup>lt;sup>20</sup> https://www.bd.gov.hk/doc/en/resources/codes-and-references/practice-notes-and-circular-letters/pnap/APP/APP151.pdf

implementation details of the proposal.<sup>21</sup>

- The Council for Sustainable Development (SDC), established by the HKSAR Government for the promotion of sustainability in Hong Kong, completed the public engagement exercise on the "Control of single-use plastics"<sup>22</sup>, and the SDC believes that the Government will carefully consider the recommendations and the appropriate timing of implementation.
- The HKSAR Government announced the Hong Kong's Climate Action Plan 2050 on 8 October 2021 with an aim to achieve carbon neutrality before 2050.<sup>23</sup>
- The Hong Kong Green Building Council (HKGBC) arranged a series of promotion activities including webinars for achieving carbon neutrality<sup>24</sup>.

Quantity Surveying
Division of the HKIS<sup>25</sup>

<sup>&</sup>lt;sup>21</sup> https://www.info.gov.hk/gia/general/202106/23/P2021062300572.htm

<sup>&</sup>lt;sup>22</sup> https://www.info.gov.hk/gia/general/202204/14/P2022041400240.htm

<sup>&</sup>lt;sup>23</sup> https://www.climateready.gov.hk/

<sup>&</sup>lt;sup>24</sup> https://www.hkgbc.org.hk/eng/global-movement/world-gbc/advancing-net-zero/advancing-net-zero-webinar-series/index.jsp

<sup>&</sup>lt;sup>25</sup> Based on the reports published in https://www.pags.net/node/192