Hong Kong Green Building Council Limited
香港綠色建築議會有限公司
1/F Jockey Club Environmental Building
77 Tat Chee Avenue, Kowloon Tong, Hong Kong
香港九龍塘達之路77號賽馬會環保樓一樓
Tel +852 3994 8888 Fax +852 3994 8899
www.hkgbc.org.hk

Hong Kong Green Building Council Limited (HKGBC)
Guidebook for Development of Sustainable Built Environment

Invitation for Expression of Interest (EOI) – 2nd Round

1. Project Background

The development of a rating tool for neighbourhoods has been on the research agenda of HKGBC since 2012. The initial phase of the development work started in 2013 resulting in the launch of a rating tool called “BEAM Plus Neighbourhood” in 2016. This tool is for assessing the masterplans of building projects. At that time, the consultant for the tool recommended that in the future, the rating tool family should be extended to the earlier stage of the building development process, such as planning studies for new towns.

In Hong Kong, a number of new development areas are being planned, such as reclamation near Lantau Island, development of new towns/brownfield sites as well as re-development of ex-quarry areas. Urban Renewal Authority is also studying the regeneration of old districts. More recently, the Government has announced that Hong Kong will strive to achieve carbon neutrality before 2050, and in developing artificial islands under the Lantau Tomorrow Vision, the Government intends to develop a liveable and carbon-neutral community.

In the private sector, in certain cases, corporations and developers may be responsible for developing mega-scale areas for residential and commercial uses, industrial/technology parks, large commercial/industrial areas at airport or boundary control points, etc.

In view of the above demands in green planning of the built environment, HKGBC intends to produce a Guidebook for the Development of Sustainable Built Environment (‘the Guidebook’), whereas in the future the Guidebook may be converted to a rating tool.

2. The Hong Kong Green Building Council (https://www.hkgbc.org.hk/eng/)

HKGBC is an overarching industry body driving the promotion and creation of green and sustainable buildings throughout the Hong Kong Special Administrative Region. It engages the community, industry and government to create a greener and more sustainable built environment.

HKGBC has engaged stakeholders of the building industry (including architects, engineers,

Hong Kong Green Building Council Limited
香港綠色建築議會有限公司
1/F Jockey Club Environmental Building
77 Tat Chee Avenue, Kowloon Tong, Hong Kong
香港九龍塘達之路77號賽馬會環保樓一樓
Tel +852 3994 8888 Fax +852 3994 8899
www.hkgbc.org.hk

surveyors, property/facility managers, developers and related Government bodies etc.) to formulate a series of best practice guides to facilitate the transformation of different types of premises to become green and sustainable buildings.

HKGBC is seeking to engage a Consultant to develop a practical guidebook to provide public sector bodies and private developers responsible for the planning and design of large districts with guidance and practical information on how to incorporate sustainability, liveability, smart, green, resilient, people-oriented, community engaging, biodiversity, and active aging aspects in their planning and design of the whole built environment.

3. Project Objectives

The main objective is to produce a Guidebook to guide green and sustainable design for the built environment, which comprises buildings, infrastructure, open areas, public and private facilities, with the ultimate aim to help Hong Kong to:

- make the best use of wind, air, sunlight, water, greenery and man-made waste in the natural and built environment;
- provide natural light and natural ventilation to buildings and infrastructure;
- design the disposition of buildings, infrastructure and open spaces in the built environment in such a way to achieve the objectives;
- widely adopt various forms of renewable energy, convert waste to energy and recycle waste;
- progress towards net zero carbon by 2050;
- achieve United Nation's Sustainable Development Goals (UN SDGs); and
- achieve the city's goal of becoming a world-class smart, green, resilient, liveable, people-oriented, sustainable and healthy city, including the latest objective to reduce the chance of disease outbreak and enhance the ability to cope with pandemics like COVID-19.

The Guidebook is not meant to overlap with the Hong Kong Planning Standards and Guidelines (HKPSG), a Government manual of criteria for determining the scale, location and site requirements of various land uses and facilities. The main focus of the Guidebook will be on green design and sustainability. It is intended to provide guidance at the conceptual stage of district design rather than on details of individual developments. It is intended to be a design guide, but not to constitute any additional burdens or barriers to the statutory procedures or land development process.

Hong Kong Green Building Council Limited
香港綠色建築議會有限公司
1/F Jockey Club Environmental Building
77 Tat Chee Avenue, Kowloon Tong, Hong Kong
香港九龍塘達之路77號賽馬會環保樓一樓
Tel +852 3994 8888 Fax +852 3994 8899
www.hkgbc.org.hk

4. Scope of Services

The Consultancy will include desktop studies and stakeholder engagement with recommendations to practitioners in the building industry. The Consultant shall carry out (but not limited to) the following:

a. Examine the definitions and concepts of 'sustainable' and 'low carbon' design of existing and new districts and how these can support climate change mitigation/resilience and advance towards net zero carbon in new development areas and regenerated old districts[1] in a high-rise high density urban context;

b. Conduct worldwide literature review and examine latest practices and emerging trends in sustainable and low-carbon designs, including but not limited to a review of deliverables of relevant studies and guidelines previously produced by the HKSAR Government, industry/statutory bodies, universities and leading consultants etc. to help identify existing achievements and future gaps in the subject areas of this Guidebook;

c. Carry out an analysis and evaluation of at least **FIVE (5)** best practice case studies covering five different regional cases including: (i) Hong Kong; (ii) Mainland China; (iii) Asia Pacific; (iv) Europe; (v) USA/Canada[2]. The selected cases shall exemplify different models of sustainable and low-carbon planning design. The Consultant shall examine the latest practices and emerging trends in designs for both new build and regeneration projects, with pros and cons for each practice and its practicality for Hong Kong;

d. In the course of the studies from Items b and c above, identify and examine how programmes and specific tools and measures can support the adoption of sustainable and low-carbon townships, and whether these can be applied to Hong Kong; these initiatives shall include (but are not limited to) requirements in the land,

---

[1] Examples of new development areas include but are not limited to Hung Shui Kiu, Kwu Tung North, Fanling North, Lantau Tomorrow Vision, Siu Ho Wan, LOHAS Park, Technology Park and Airport City developments, etc.
Examples of old districts include but are not limited to Yau Ma Tei, Mong Kok, Kowloon East, Island South, etc.

[2] Examples of sustainable/low-carbon city case studies in world zones outside Hong Kong:
(a) Mainland China: https://www.slideserve.com/ishana/yujiapu-financial-district-low-carbon-town-index-system
(b) Asia Pacific: https://www.apec.org/Publications/2016/06/The-Concept-of-LowCarbon-Town-in-the-APEC-Region-5th-edition
(c) Europe: https://ec.europa.eu/environment/europeangreencapital/winning-cities/
(d) USA/Canada: https://www.usgbc.org/resources/leed-cities-and-communities-case-study-royal-oak-mi; https://www.usgbc.org/resources/leed-cities-and-communities-case-study-santa-fe-nm; https://www.usgbc.org/resources/leed-cities-and-communities-case-study-orlando-fl.

Hong Kong Green Building Council Limited
香港綠色建築議會有限公司
1/F Jockey Club Environmental Building
77 Tat Chee Avenue, Kowloon Tong, Hong Kong
香港九龍塘達之路77號賽馬會環保樓一樓
Tel +852 3994 8888 Fax +852 3994 8899
www.hkgbc.org.hk

public-private partnership in delivering affordable housing, wider public participation, feed-in tariffs, renewable energy certificates, carbon offsets/trading, etc.

e. Recommend, develop and produce a comprehensive and generic 'best practice' guidebook on sustainable and low-carbon planning (incorporating also smart, green, resilience, biodiversity, people-oriented and liveability strategies) for new development areas and old district regeneration in Hong Kong. By 'low-carbon', the practices recommended in the Guidebook shall cover a range of 'low', 'super-low' and 'zero' carbon designs so that different developers can make their own choices based on institutional goals, site constraints and resource availability.

f. Take other city or community level national/international sustainability rating tools as a reference in formulating the Guidebook. These tools include (but are not limited to) '*LEED v4.1 Cities and Communities: Plan and Design*', '*Green Star Communities v1.1 Rating Tool'* and *'China Assessment Standard for Green Eco-district*[3]*'.*

g. Include in the Guidebook general areas such as governance, policies and incentives, community participation, integrative planning and design process, etc. as well as technical areas. Examples of technical areas that shall be covered by the Guidebook include compact city planning, light/air/wind/sun/water/natural resources in the built environment, health and wellbeing, liveability, active living, open space and ecology, biodiversity, walkability, pedestrian priority, bikeability, low-carbon transport, green buildings, district energy systems, renewable energy, carbon neutrality, total water management, solid waste management/waste-to-energy/circular economy, climate change risk assessment, integrated shading for buildings and pedestrians, heavy rainfall protection/temporary shelter for walking or cycling, sustainable drainage/sponge city, etc. The Guidebook shall dovetail but shall not overlap with the function of the HKPSG, Buildings Department's Sustainable Building Design (SBD) Guidelines, as well as other relevant in-use documents such as Town Planning Board's Harbour Vision Statement, Harbour Planning Principles and Harbour Planning Guidelines promulgated by the Harbourfront Commission.

h. [Optional] Carry out pilot testing of the Guidebook by conceptually applying it to the planning of up to two real-case projects in Hong Kong. The Consultant shall work with HKGBC's Partnering Organisation(s) to apply, where suitable, the Guidebook

[3] Assessment Standard for Green Eco-district: http://www.jianbiaoku.com/webarbs/book/113131/3444357.shtml

Hong Kong Green Building Council Limited
香港綠色建築議會有限公司
1/F Jockey Club Environmental Building
77 Tat Chee Avenue, Kowloon Tong, Hong Kong
香港九龍塘達之路77號賽馬會環保樓一樓
Tel +852 3994 8888 Fax +852 3994 8899
www.hkgbc.org.hk

requirements to the planning of up to **TWO (2)** project cases. For each project, the efforts of the Consultant will be limited to the holding of one full-day design charrette and the production of a brief follow-up report summarizing the outcome of the charrette. Application of requirements is limited to conceptual design only while development of full details would not be required. The Consultant shall act as the facilitator among the different disciplines of professionals in the design charrette. (The carrying out of this item is subject to the availability of projects offered by Partnering Organisation(s).)

The Consultant shall also note that there are sustainability rating tools such as UK's CEEQUAL and Australia/New Zealand's Infrastructure Sustainability (IS) Rating Scheme that may be applied to infrastructure/civil engineering projects in Hong Kong and adjacent areas. In the future, a similar tool may also be developed for Hong Kong. In formulating the guidelines, the Consultant shall take into account this fact and incorporate appropriate interfaces with these kinds of tools (such as citing the use of such tools as a recommended practice). The guidelines shall avoid unnecessary duplications with these tools.

5. Project Deliverables

The Consultant's deliverables shall include but are not limited to:

a. Produce a review and research report including literature review and the results of studies in Items 4a, 4b, 4c and 4d above, and the proposed Guidebook framework;

b. Hold at least **TWO (2)** stakeholder engagement exercises with summary reports of analysis and recommendations. The first shall be held after completion of review and research report; while the second shall be held after the draft guidebook has been produced. Each exercise shall be carried via two means done in parallel, i.e. real-time meeting plus a defined period for open collection of written comments. The real-time meeting may be held via physical or on-line means depending on the situation of the pandemic. If physical meeting is chosen, venue will be provided by HKGBC. For the open collection of written comments, the Consultant shall develop a webpage for collection of the comments.

   Meeting participants shall include but not be limited to:

Hong Kong Green Building Council Limited
香港綠色建築議會有限公司
1/F Jockey Club Environmental Building
77 Tat Chee Avenue, Kowloon Tong, Hong Kong
香港九龍塘達之路77號賽馬會環保樓一樓
Tel +852 3994 8888 Fax +852 3994 8899
www.hkgbc.org.hk

- Land owners and developers including the HKSAR Government, statutory bodies (e.g. Urban Renewal Authority, MTR Corporation Ltd, Hong Kong Housing Authority, Hong Kong Housing Society, Hong Kong Airport Authority, Hong Kong Science and Technology Parks Corporation, etc.) and private developers;
- Building industry professionals, e.g. BEAM Professionals, planners, surveyors, architects, engineers, landscape architects, property and facility managers, etc.;
- Academics and experts in the subject matters, e.g. relevant departments in universities, members of HKGBC Green Building Faculty, etc.;
- Relevant Government departments and offices (e.g. Environment Bureau, Development Bureau, Transport and Housing Bureau, Planning Department, Civil Engineering and Development Department, Buildings Department, Lands Department, Architectural Services Department, Electrical and Mechanical Services Department, Water Supplies Department, Drainage Services Department, Environmental Protection Department, Transport Department, Sustainable Lantau Office, Energizing Kowloon East Office, the government office responsible for the Invigorating Island South initiative, etc.)
- Industry organisations and professional bodies (e.g. Hong Kong Institute of Urban Design, The Hong Kong Institute of Planners, Professional Green Building Council, Construction Industry Council, Smart City Consortium, etc.);
- Utility companies, such as CLP, HK Electric and Towngas; and
- HKGBC members including institutional members, individual members, standing committee members and Directors of the Council.

The Consultant shall propose/recommend meeting and survey participants, issue invitations, answer queries, prepare the necessary workshop and questionnaire materials, conduct surveys and host discussions with key stakeholder groups.

c. A guidebook which shall include (but not limited to) the following:

- Definition(s) and concepts of relevant terms, including the meanings of sustainability, smart, liveability, resilience and low-carbon built environment;
- A brief summary of the results of the literature review including international best practice case studies;
- State of the art of current planning and development practices in Hong Kong;
- Challenges and opportunities for Hong Kong taking into account characteristics of the city and its population, the latest current situation and forthcoming

Hong Kong Green Building Council Limited
香港綠色建築議會有限公司
1/F Jockey Club Environmental Building
77 Tat Chee Avenue, Kowloon Tong, Hong Kong
香港九龍塘達之路77號賽馬會環保樓一樓
Tel +852 3994 8888 Fax +852 3994 8899
www.hkgbc.org.hk

opportunities including Hong Kong's goal to achieve carbon neutrality before 2050;

- The comprehensive guide itself, which shall consist of –
  - A set of overarching 'Principles' that spell out the different key requirements of sustainable low-carbon built environment design covering smart, green, resilience, liveability and sustainability, which shall meet the project objectives;
  - Under each Principle, a set of detailed best practices that spell out the: (i) requirements; (ii) measurement metrics; (iii) acceptable evidence; and (iv) reference standards (e.g. ISO standards, codes, relevant green rating tools) *(Remark: This format is for facilitating the future conversion of the Guidebook where appropriate to a rating tool.)*
  - Simple-to-use checklists and templates, which aim to summarise best practices and their associated metrics.
- Cross-reference table between suggested best practices and UN SDGs;
- Recommendations on future development and studies.

d. The guidebook shall be delivered in the form of a web version document with clickable interface from the HKGBC website (http://www.hkgbc.org.hk); source documents in editable Word format shall be handed over to HKGBC.

e. Optional items include:

- Pilot testing of the Guidebook by applying it to the planning of up to two projects in Hong Kong;
- Printing of the Guidebook - 200 hard copies with no more than 50 double-sided pages in A4 size using recycled paper with perfect binding
- Translation of the Guidebook (English to Traditional Chinese)
- Delivery of a public talk to introduce the Guidebook to the public.

The Consultancy will be steered by HKGBC Steering Committee Members, with project management by the HKGBC Secretariat. The Consultancy shall be completed within **NINE (9) months** from tender award date (excluding Optional items).

6. Consultant Requirements

Consultants should fulfil the following minimum requirements for their submissions to be

Hong Kong Green Building Council Limited
香港綠色建築議會有限公司
1/F Jockey Club Environmental Building
77 Tat Chee Avenue, Kowloon Tong, Hong Kong
香港九龍塘達之路77號賽馬會環保樓一樓
Tel +852 3994 8888 Fax +852 3994 8899
www.hkgbc.org.hk

considered:

a. History of establishment - established for at least **FIVE (5) years** and with an office in Hong Kong;
b. Relevant local and international project references of sustainable and low-carbon planning for new development areas/regeneration of existing districts undertaken in the past FIVE (5) years;
c. The composition of the Consultancy team as a whole shall comprise staff of various disciplines with local and international expertise in the following areas:

- Planning and engineering studies for new development areas or regeneration of old urban districts
- Sustainable and green design of the built environment
- Smart city planning and related use of technologies
- Climate resilience design and climate adaptation
- Design for achieving low/zero carbon
- Use of renewable energy and natural elements such as sunlight, air/wind, water, open spaces, geothermal, etc.,
- Circular economy and utilization of waste for sustainable purposes.

It is expected that team from the planning discipline as well as team from the various engineering disciplines would be required. Sustainability experts with good experience in green building rating tools would also be required. Project directors shall be experienced professionals with more than 15 years' experience whereas project managers shall be experienced professionals with more than 8 years' experience.

7. Submission

Interested Consultants are invited to submit their EOI in undertaking this Consultancy. They shall include the following information in their EOI proposal of no more than **SIX (6) A4 pages**:

a. Company profile, background and expertise;
b. Staff resources – organisation chart of the proposed project team, with curriculum vitae of key team members, and strengths in carrying out the scope of services;
c. Previous relevant experience and project references in Hong Kong and overseas;

Hong Kong Green Building Council Limited
香港綠色建築議會有限公司
1/F Jockey Club Environmental Building
77 Tat Chee Avenue, Kowloon Tong, Hong Kong
香港九龍塘達之路77號賽馬會環保樓一樓
Tel +852 3994 8888 Fax +852 3994 8899
www.hkgbc.org.hk

d. Brief summary statement of understanding of the key requirements, constraints and opportunities, and overall approach to meet the requirements of the Consultancy; and
e. Indication of sub-consultants to be employed - e.g. academic institutions, specialists, experts, advisors etc.) to provide the services specified under the Agreement.

*Note - Supplementary materials can be attached as appendices.

The EOI submission must be contained in a sealed envelope and delivered by mail or in person to the below address **on or before 6:00pm** on **18 June 2021 (Friday)**.

Expression of Interest for Guidebook for Development of Sustainable Built Environment

Hong Kong Green Building Council Ltd.
1/F Jockey Club Environmental Building
77 Tat Chee Avenue Kowloon Tong

Late submissions shall not be considered. In the event that a Typhoon Signal No. 8 or above or Black Rainstorm warning is hoisted on the closing date, the EOI submission closing date will be postponed to 6:00pm on the following working day.

This invitation for EOI does not constitute an invitation to offer nor does this document or any document made available pursuant to this invitation constitute any contract or agreement of any kind whatsoever with HKGBC. The HKGBC also reserves the right to cancel or terminate the process of EOI at any time and shall not be liable to any party for any loss or damage, cost or expenses as a result of such action.

8. Enquiries

For any enquires concerning this EOI invitation, please contact:
Dr Paul SAT at 3994 8821 (email: paul.sat@hkgbc.org.hk) or
Ms Sophia HUNG at 3994 8861 (email: sophia.hung@hkgbc.org.hk)

Issued: May 2021